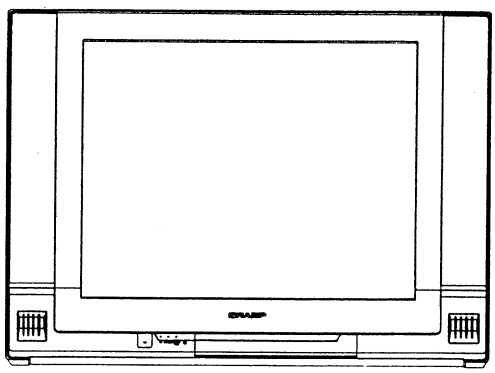
SHARP

# SERVICE MANUAL
# 维修手册

SY0M929B-FX8/



## COLOUR TELEVISION

***Chassis No. UA-1***

**MODELS 型号**

# 29B-FX8
# 29B-FG8

In the interests of user-safety (Required by safety regulations in some countries) the set should be restored to its original condition and only parts identical to those specified should be used.

为了用户安全起见（根据一些国家的安全规程的需要），应将液晶投影机保持于最初的状态，而且只能使用与指定物相同的部件。

## FEATURE

- World Multi 28 System
- 100 CH Program Memory
- AV Mode (Standard/Dynamic/Soft)
- CATV Hyper Band Ready
- Comb Filter NTSC Color Comb
- On/Off Velocity Modulation
- Black Stretch Circuit
- Picture Noise Reduction
- White Temp. Select
- Aperture Control
- Bass+
- Multi Language (Eng./Chi./Rus./Fre./Malay/Arab)
- On/Off Reminder Timer
- Power Save Mode
- Rear AV-IN 1 & 2, S-Video In, AV Output (Monitor Out), Headphone, And Front AV-IN 3.
- NICAM (B/G, D/K, I)/IGR(B/G)
- 3.5L Speker Box (Only for 29B-FX5)

## 主要功能

- 28 制式世界通用功能
- 100 频道程序存储功能
- AV(声像)方式(标准 / 动态 / 柔和)
- 有线电视 HYPER 频带准备状态
- NTSC 制式彩色梳齿滤波器
- ON/OFF 速度调制功能
- 黑色脉冲展宽电路
- 图像噪声减低功能
- 白色色温选择功能
- 孔径调整电路
- 低音频 +
- 多语言播放功能(英文 / 中文 / 俄文 / 法文 / 马来西亚 / 阿拉伯文)
- ON/OFF 剩余时间定时器
- 电源节电功能
- 背面声像信号输入端 1 和 2，S- 视频信号输入端，声像信号输出端(监视器输出)，耳机插接端以及前面声像信号输入端 3
- NICAM(B/G,D/K,I)/IGR(B/G)制式
- 3.5L 扬声器箱(仅限型号 29B-FX8)

## WARNING

**The chassis in this receiver is partially hot. Use an isolation transformer between the line cord plug and power receptacle, when servicing this chassis. To prevent electric shock, do not remove cover. No user – serviceable parts inside. Refer servicing to qualified service personnel.**

## 警　　告

该电视机底盘的有些部分通电。当维修本机底盘时，请在电源线插头和电源插座之间使用隔离变压器。
为了防止电击的危险，不要去拆下机盖。在里面的部件，不是使用者所能维修的，必须委托够格的维修人员来进行维修。

SHARP CORPORATION

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# ELECTRICAL SPECIFICATIONS

| | |
|---|---|
| Power Input | 110-240V AC 50/60 Hz |
| Power Consumption | 170W |
| Convergence | Self Convergence System |
| Focus | Bi-Potential, Uni-Potential Electrostatic |
| Sweep Deflection | Magnetic |
| Intermediate Frequency | |
| Picture IF Carrier | 38.9 MHz |
| Sound IF Carrier | |
| 6.5 MHz | 32.4 MHz |
| 6.0 MHz | 32.9 MHz |
| 5.74 MHz | 33.16 MHz |
| 5.5 MHz | 33.4 MHz |
| 4.5 MHz | 34.4 MHz |
| Colour Sub-Carrier | |
| PAL | 34.47 MHz |
| SECAM | 34.494/34.65 MHz |
| NTSC | 35.32 MHz |
| Audio Power Output Rating | 10W x 2(max) |
| Speaker | |
| Size | 8 x 12cm x 2 pcs |
| Aerial Input Impedence | 75 ohm Unbalanced |
| Receiving Channels | |
| PAL-B/G, SECAM-B/G | |
| VHF | E2 thru E12 |
| UHF | E21 thru E69 |
| CATV | X thru Z + 2, S1 thru S41 |
| PAL-D/K, SECAM-D/K | |
| VHF | R1 thru R12, C1 thru C12 |
| UHF | 21 thru 69, C21 thru C57 |
| PAL-I, SECAM-I | |
| VHF (IRELAND): | B thru J |
| UHF (U.K., H.K.) | 21 thru 69 |
| NTSC-M | |
| VHF (US): | 2 thru 13 |
| (JAPAN): | 1 thru 12 |
| UHF (US): | 14thru 69 |
| (JAPAN): | 13 thru 62 |
| CATV (US): | A-6 thru A-1, A thru W+29 |
| (JAPAN): | C13 thru C63 |
| Receiving Frequency | |
| VHF | 44.25 MHz thru 423.25 MHz |
| UHF | 431.25 MHz thru 863.25 MHz |
| Dimensions | Width : 800mm |
| | Height : 583mm |
| | Depth : 512mm |
| | Weight (Approx) : 47.5kg |

***Specifications are subject to change without prior notice.***



## IMPORTANT SERVICE NOTES

**Maintenance and repair of this receiver should be done by qualified service personnel only.**

### SERVICE OF HIGH VOLTAGE SYSTEM AND PICTURE TUBE

**When servicing the high voltage system, remove static charge from it by Connecting a 10K ohm Resistor in series with an insulated wire (such as a test probe) between picture tube dag and 2nd anode lead.**
**(AC line cord should be disconnected from AC outlet.)**

1. **Picture tube in this receiver employs integral implosion protection.**
2. **Replace with tube of the same type number for continued safety.**
3. **Do not life picture tube by the neck.**
4. **Handle the picture tube only when wearing shatterproof goggles and after discharging the high voltage completely.**

### X-RAY

**This receiver is designed so that any X-Ray radiation is kept to an absolute Minimum. Since certain malfunctions or servicing may produce potentially hazardous radiation with prolonged exposure at close range, the following precautions should be observed:**

1. **When repairing the circuit, be sure not to increase the high voltage to more than 33.0 kV (at beam 0 μA) for the set.**
2. **To keep the set in a normal operation, be sure to make it function on 29.0 kV ± 1.5 kV (at beam 1600 μA) in the case of the set. The set has been factory-Adjusted to the above-mentioned high voltage.**

∴ **If there is a possibility that the high voltage fluctuates as a result of the repaies, never forget to check for such high voltage after the work.**

3. **Do not substitute a picture tube with unauthorized types and/or brands which may cause excess X-ray radiation.**

### BEFORE RETURNING THE RECEIVER

**Before returning the receiver to the user, perform the following safety Checks.**

1. **Inspect all lead dress to make certain that leads are not pinched or that hardware is not lodged between the chassis and other metal parts in the receiver.**
2. **Inspect all protective devices such as non-metallic control knobs, insulating fishpapers cabinet backs, adjustment and compartment covers or shields, isolation resistor-capacity networks, mechanical insulators etc.**

# ADJUSTMENT PRECAUTIONS

This model's setting are adjusted in two different ways: through the I²C bus control and in the conventional analog manner. The adjustments via the I²C bus control include preset-only items and variable data.

## 1. Setting the service mode by the microprocessor.

① When the JA373 and JA374 are short-circuited, enter into the service mode. (Adjustment through the I²C bus control). (Use JWS Key to set as well).
② Press the CH DOWN / UP key on the remote controller to get ready to select the mode one by one.
③ Press the CH DOWN / UP key on the remote controller to select the modes reversibly one by one.
④ Using the VOLUME UP/ DOWN key on the remote controller, the data can be modified.
⑤ When the short circuit between the JA373 and JA374 is cut off, it will be released from the service mode.

## 2. Factory Presetting.

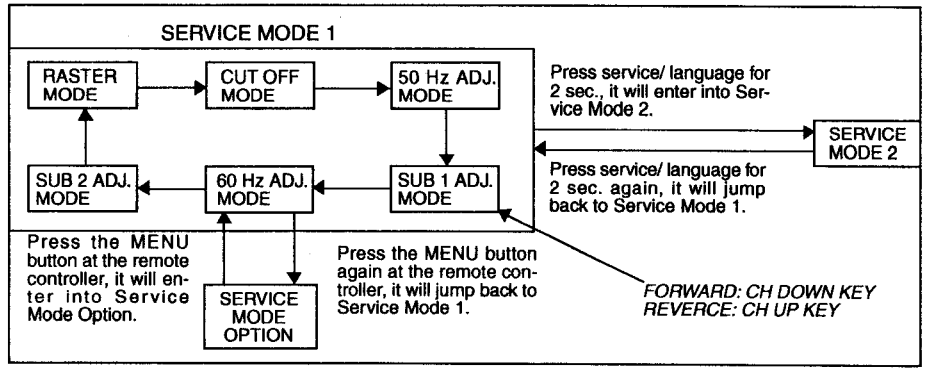
① Short JA373 & JA374 and turn on the main power switch. Initial values are automatically preset, only when a new EEPROM is used (Judge with the first 4 bytes).
② The initial data are preset as listed in page.
③ Make sure the data need modify or not (Initial data).

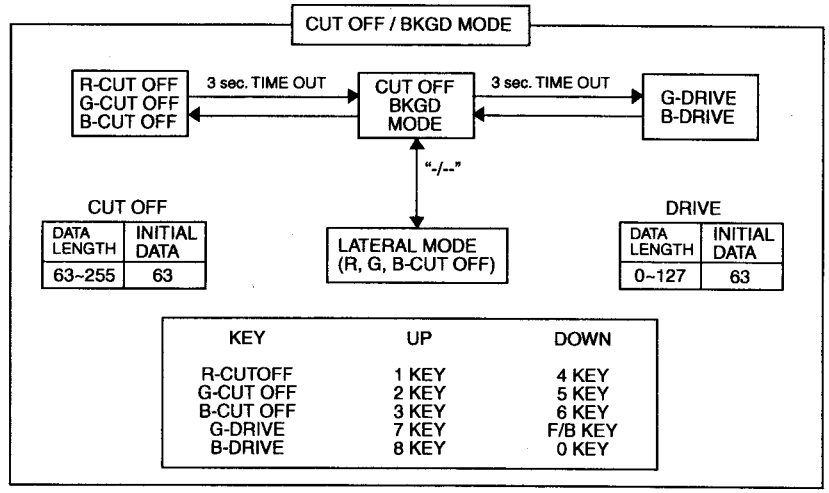
**Note: Once the chassis has been assembly together and ready to be POWER ON for the FIRST TIME, make sure to short JA373 & JA374 to switch to the service mode position first and then turn on the main power switch. (See 2-① above).**

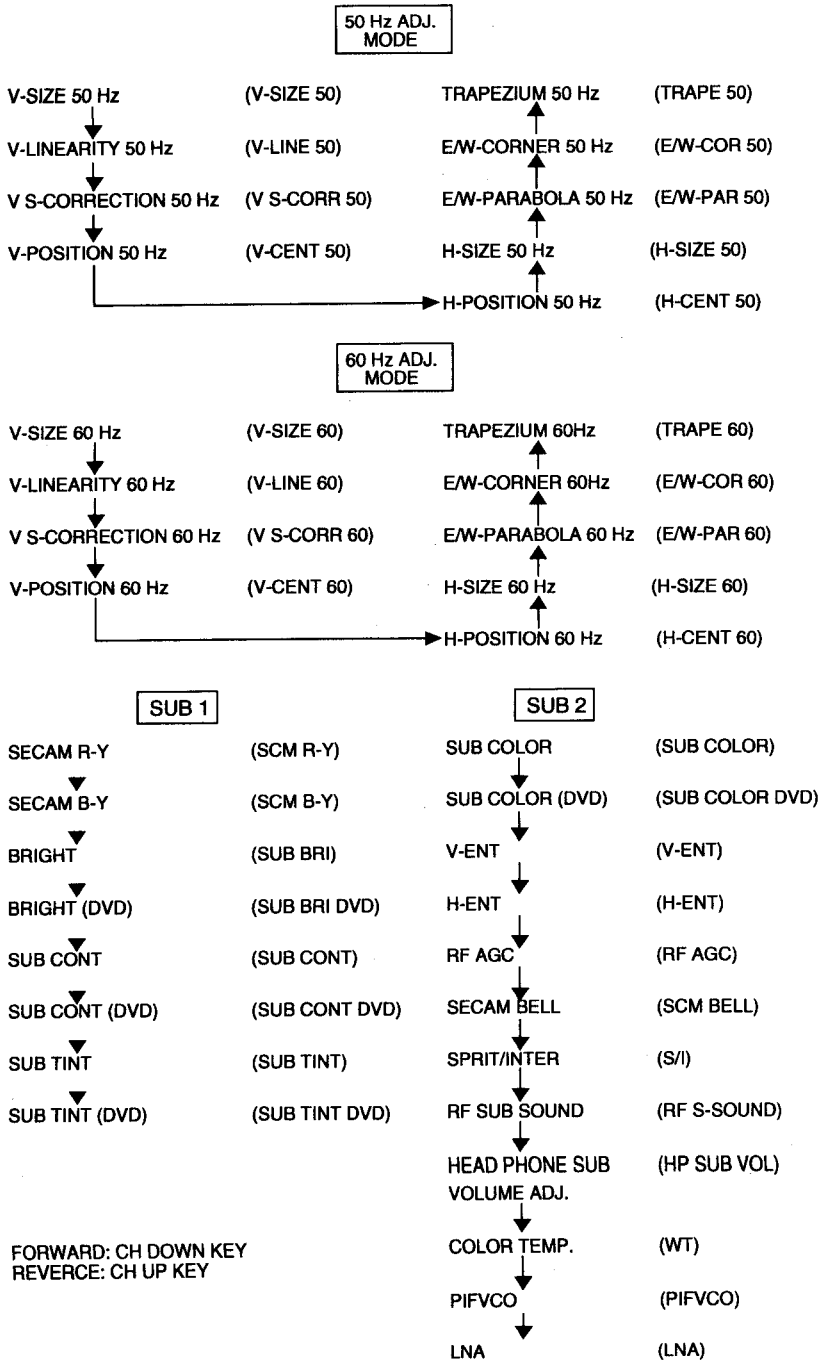
**Precaution: If haven't done this initiation, it may possibly generate excessive Beam current.**

# SERVICE MODE 1

1.) In the Service Mode, Key is used to select the mode in the following order.


SERVICE MODE 1
RASTER MODE
CUT OFF MODE
50 Hz ADJ. MODE
SUB 2 ADJ. MODE
60 Hz ADJ. MODE
SUB 1 ADJ. MODE
Press service/ language for 2 sec., it will enter into Service Mode 2.
SERVICE MODE 2
Press service/ language for 2 sec. again, it will jump back to Service Mode 1.
Press the MENU button at the remote controller, it will enter into Service Mode Option.
SERVICE MODE OPTION
Press the MENU button again at the remote controller, it will jump back to Service Mode 1.
FORWARD: CH DOWN KEY
REVERCE: CH UP KEY






# USER DATA IN SERVICE MODE OPTION

- While SERVICE MODE 1 on, EEPROM DATA will switch to the service data. Also, once press the menu button at the remote controller, EEPROM will switch to SERVICE MODE OPTION.
  Once press the menu button again at the remote controller, EEPROM will switch back to SERVICE MODE 1.
- In the service option the user data establish as below,

## Service Mode Option

| No. | EEPROM ITEM | DATA LENGTH | OSD | IC | DATA SETTING | INITIAL DATA |
|---|---|---|---|---|---|---|
| 1 | COMB OPTION | ON/OFF | COMB OP | OPTION | | OFF |
| 2 | DVD OPTION | ON/OFF | DVD OP | OPTION | | OFF |
| 3 | PAL OPTION | ON/OFF | PAL OP | OPTION | | ON |
| 4 | 6.5 M SIF FIX | 0 ~ 1 | 6.5 M | 1 CHIP | 6.5 M SIF FIX (0) | 0 |
| 5 | ROTATION OPTION | ON/OFF | ROTA OP | OPTION | | OFF |
| 6 | SYAKIT OPTION | ON/OFF | SYAKIT OP | OPTION | | OFF |
| 7 | SPATIALIZER OPTION | ON/OFF | SPA OP | OPTION | | OFF |
| 8 | FLAT OPTION | ON/OFF | FLAT OP | OPTION | (ON:FL) | OFF |
| 9 | SPEAKER | 1 ~ 4 ⚠1 | SPEAKER | OPTION | SPI (1) | 1 |
| 10 | HOTEL ON/OFF | ON/OFF | H MODE | OPTION | | OFF |
| 11 | HOTEL POSITION | 0 ~ 99 | H POSITION | OPTION | | 0 |
| 12 | HOTEL VOLUME | 0 ~ 60 | H VOLUME | OPTION | | 0 |

| | DATA | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | SX68KF7 | CX68KF5 | 29B-FG5 | 29B-FG8 | 29B-FX5 | 29B-FX8 | 29B-FX1 | |
| COMB | ON | – – – | – – – | – – – | – – – | – – – | – – – ▶ | |
| DVD | ON | – – – | – – – | – – – | – – – | – – – | – – – ▶ | |
| PAL | ON | ON | OFF | OFF | OFF | OFF | OFF | |
| 6.5 M | 0 | 0 | 0 | 0 | 0 | 0 | 1 | ⚠1 |
| ROTA | OFF | – – – | – – – | – – – | – – – | – – – | – – – ▶ | |
| SYAKIT | OFF | – – – | – – – | – – – | – – – | – – – | – – – ▶ | |
| SPA | OFF | – – – | – – – | – – – | – – – | – – – | – – – ▶ | |
| FLAT | ON | – – – | – – – | – – – | – – – | – – – | – – – ▶ | |
| SPEAKER | 3 | 3 | 3 | 3 | 4 | 4 | 4 | |
| H MODE | OFF | – – – | – – – | – – – | – – – | – – – | – – – ▶ | |
| H POS | O | – – – | – – – | – – – | – – – | – – – | – – – ▶ | |
| H VOL | O | – – – | – – – | – – – | – – – | – – – | – – – ▶ | |

AFTER SHORT JA 373 & JA 374, AND TURN ON THE MAIN POWER SWITCH, READ DATA FROM EEPROM ADDRESS 00H ~ 03H, AND COMPARE TO THE LIST BELOW, IF DIFFERENT, INITIALIZE THE EEPROM.

| ADDRESS | DATA |
|---|---|
| 00H | 23H |
| 01H | 23H |
| 02H | 18H |
| 03H | A3H |

## 1. SERVICE MODE 1.

| No. | EEPROM SETTING | DATA LENGTH | OSD | IC | DATA SETTING | INITIAL DATA |
|---|---|---|---|---|---|---|
| 0 | MICOM INFO. DISPLAY | | SERVICE MODE | | | |
| 1 | CUT OFF | REFER # | CUTOFF BKGD | | | |
| 2 | CUT OFF (DVD) | REFER # | CUTOFFBKGD (DVD) | | | |
| 3 | V-SIZE | 0 ~ 63 | V-SIZE 50 | 1 CHIP | V-SIZE | 30 |
| 4 | V-LINEARITY (50Hz) #2 | 0 ~ 15 | V S-LINE 50 | 1 CHIP | V-LINEARITY | 10 |
| 5 | VS-CORRECTION (50Hz) #2 | 0 ~ 15 | V S-CORR 50 | 1 CHIP | V S-CORRECTION | 8 |
| 6 | V-POSITION #2 | 0 ~ 7 | V-CENT 50 | 1 CHIP | V-PHASE | 5 |
| 7 | H-POSITION #2 | 0 ~ 31 | H-CENT 50 | 1 CHIP | H-PHASE | 44 |
| 8 | H-SIZE (50Hz) #2 | 0 ~ 63 | H-SIZE 50 | 1 CHIP | H-SIZE | 32 |
| 9 | E/W-PARABOLA (50Hz) #2 | 0 ~ 63 | E/W PAR 50 | 1 CHIP | E/W PARABORA | 39 |
| 10 | E/W CORNER (50Hz) #2 | 0 ~ 15 | E/W COR 50 | 1 CHIP | E/W CORNER | 6 |
| 11 | TRAPEZIUM (50Hz) #2 | 0 ~ 31 | TRAPE 50 | 1 CHIP | TRAPEZIUM | 17 |
| 12 | SECAM R-Y #3 | 0 ~ 15 | SCM R-Y | 1 CHIP | SR-Y | 8 |
| 13 | SECAM B-Y #3 | 0 ~ 15 | SCM B-Y | 1 CHIP | SB-Y | 8 |
| 14 | BRIGHT | 0 ~ 127 | SUB BRI | 1 CHIP | BRIGHTNESS | 80 |
| 15 | BRIGHT (DVD) | 0 ~ 127 | SUB BRI DVD | 1 CHIP | BRIGHTNESS | 80 |
| 16 | SUB CONT | 0 ~ 15 | SUB CONT | 1 CHIP | SUB CONT | 3 |
| 17 | SUB CONT (DVD) | 0 ~ 15 | SUB CONT DVD | 1 CHIP | SUB XONT | 3 |
| 18 | TINT | 0 ~ 127 | SUB TINT | 1 CHIP | TINT | 64 |
| 19 | TINT (DVD) | 0 ~ 127 | SUB TINT DVD | 1 CHIP | TINT | 16 |
| 20 | V-SIZE | 0 ~ 63 | V-SIZE 60 | 1 CHIP | V-SIZE | 39 |
| 21 | V-LINEARITY | 0 ~ 15 | V-LINE 60 | 1 CHIP | V-LINEARITY | 10 |
| 22 | VS-CORRECTION (60Hz) | 0 ~ 15 | V S-CORR 60 | 1 CHIP | V S-CORRECTION | 9 |
| 23 | V-POSITION (60Hz) | 0 ~ 7 | V-CENT 60 | 1 CHIP | V-PHASE | 2 |
| 24 | H-POSITION (60Hz) | 0 ~ 31 | H-CENT 60 | 1 CHIP | H-PHASE | 14 |
| 25 | H-SIZE (60Hz) | 0 ~ 63 | H-SIZE 60 | 1 CHIP | H-SIZE | 34 |
| 26 | E/W PARABOLA (60Hz) | 0 ~ 63 | E/W PAR 60 | 1 CHIP | E/W PARABORA | 19 |
| 27 | E/W CORNER (60Hz) | 0 ~ 15 | E/W COT 60 | 1 CHIP | E/W CORNER | 4 |
| 28 | TRAPEZIUM (60Hz) | 0 ~ 31 | TRAPE 60 | 1 CHIP | TRAPEZIUM | 6 |
| 29 | COLOUR | 0 ~ 127 | SUB COL | 1 CHIP | COLOUR | 60 |
| 30 | COLOUR (DVD) | 0 ~ 127 | CUB COL DVD | 1 CHIP | COLOUR | 60 |
| 31 | V-ENT | 0 ~ 7 | V-ENT | 1 CHIP | V-ENT | 6 |
| 32 | H-ENT | 0 ~ 7 | H-ENT | 1 CHIP | H-ENT | 4 |
| 33 | RF AGC | 0 ~ 63 | RF AGC | 1 CHIP | RF AGC | 46 |
| 34 | SECAM BELL | 0 ~ 1 | SCM BELL | 1 CHIP | S BELL | 0 |
| 35 | SPRIT/INTER | 0 ~ 1 | S/I | 1 CHIP | SPRIT/INTER | 0 |
| 36 | RF SUB SOUND | 0 ~ 127 | RF S-SOUND | 1 CHIP | RF SUB SOUND | 96 |
| 37 | SUB VOLUME | 0 ~ 63 | SUB VOL | SOR/SPA | VOLUME | 45 |
| 38 | H. PHONE SUB VOL. ADJ. | 0 ~ 63 | HP SUB VOL | SOR/SPA | VOLUME | 63 |
| 39 | COLOR TEMP. | 0 ~ 1 | WT | OPTION | Russia: 0, Other: 1 | 1 |
| 40 | PIF VCO | #4 | PIFVCO | | | - |
| 41 | LNA | ON/OFF | LNA | OPTION | | OFF |

#1 WHILE SELECTING SERVICE MODE 1, MICOM VERSION INFORMATION, SOFTWARE VERSION INFORMATION, CHECK SOME INFORMATION WILL BE DISPLAYED.
#2. 60 Hz ADJUSTMENT VALUE IS PROGRAMMED FROM ± 50 Hz ADJUSTMENT VALUE (± WILL BE INFORMED LATER)
#3 WHILE ADJUSTING SECAM R-Y, SECAM B-Y, **S BLACK** OF 1 CHIP IS SET TO 1.
#4 WHILE CHOOSING PIFVCO MODE, **RF AGC** SET TO "0 0" AND **PIFVCO** IS SET TO "1".

## 2. SERVICE MODE 2.

| NO. | EEPROM ITEM | DATA LENGTH | OSD | IC | DATA SETTING | INITIAL DATA | |
|---|---|---|---|---|---|---|---|
| 1 | WPS | 0 ~ 1 | WPS | 1 CHIP | WPS | 1 | |
| 2 | SUB CONTRAST | 0 ~ 127 | S CONT | 1 CHIP | CONTRAST | 127 | |
| 3 | NTSC PHASE (NT) | 0 ~ 3 | N-PNT | 1 CHIP | NTSC PHASE | 0 | |
| 4 | NTSC PHASE (PAL/SEC.) | 0 ~ 3 | N-P PS | 1 CHIP | NTSC PHASE | 0 | |
| 5 | NTSC PHASE (DVD) | 0 ~ 3 | N-PD | 1 CHIP | NTSC PHASE | 3 | |
| 6 | SUB SHARPNESS (TV) | 0 ~ 63 | S SHARP T | 1 CHIP | SHARPNESS | 32 | ⚠2 |
| 7 | SUB SHARPNESS (AV) | 0 ~ 63 | S SHARP A | 1 CHIP | SHARPNESS | 20 | ⚠1 |
| 8 | SUB SHARPNESS (DVD) | 0 ~ 63 | S SHARP D | 1 CHIP | SHARPNESS | 10 | |
| 9 | RGB MUTE | 0 ~ 1 | RGB MUTE | 1 CHIP | RGB MUTE | OFF | |
| 10 | RGB CONTRAST | 0 ~ 63 | RGB CONT | 1 CHIP | RGB CONTRAST | 32 | ⚠1 ⚠2 |
| 11 | Y-DL (NTSC-M) | 0 ~ 3 | YNM | 1 CHIP | Y-DL | 1 | |
| 12 | Y-DL (PAL-B/G) | 0 ~ 3 | YPB | 1 CHIP | Y-DL | 1 | |
| 13 | Y-DL (PAL-I) | 0 ~ 3 | YPI | 1 CHIP | Y-DL | 3 | |
| 14 | Y-DL (PAL-D/K) | 0 ~ 3 | YPD | 1 CHIP | Y-DL | 3 | |
| 15 | Y-DL (SECAM-B/G) | 0 ~ 3 | YSB | 1 CHIP | Y-DL | 0 | |
| 16 | Y-DL (SECAM-D/K) | 0 ~ 3 | YSD | 1 CHIP | Y-DL | 3 | |
| 17 | Y-DL (B/W) | 0 ~ 3 | YBW | 1 CHIP | Y-DL | 0 | |
| 18 | Y-DL (NTSC-AV) | 0 ~ 3 | YNA | 1 CHIP | Y-DL | 0 | |
| 19 | Y-DL (PAL-AV) | 0 ~ 3 | YPA | 1 CHIP | Y-DL | 0 | |
| 20 | Y-DL (SECAM-AV) | 0 ~ 3 | YSA | 1 CHIP | Y-DL | 0 | |
| 21 | Y-DL (B/W-AV) | 0 ~ 3 | YBA | 1 CHIP | Y-DL | 0 | |
| 22 | SUB COLOUR | 0 ~ 31 | SUB COL | 1 CHIP | SUB-COLOR | 16 | |
| 23 | VSM GAIN AVM1 | 0 ~ 7 | V-GAIN 1 | 1 CHIP | VSM GAIN | 3 | |
| 24 | VSM GAIN AVM2 | 0 ~ 7 | V-GAIN 2 | 1 CHIP | VSM GAIN | 5 | |
| 25 | VSM GAIN AVM3 | 0 ~ 7 | V-GAIN 3 | 1 CHIP | VSM GAIN | 7 | |
| 26 | BASE BAND TINT | 0 ~ 31 | B-B TINT | 1 CHIP | BASE BAND TINT | 16 | |
| 27 | SECAM GP-PHASE | 0 ~ 3 | S G-PHASE | 1 CHIP | S SP-PHASE | 1 | |
| 28 | SECAM ID-SENS | 0 ~ 1 | S ID-SENS | 1 CHIP | S ID-SENS | | |
| 29 | SECAM ID-MODE | 0 ~ 1 | S ID-MODE | 1 CHIP | S ID-MODE | 0 | |
| 30 | PIF FREQ | 0 ~ 7 | P FREQ | 1 CHIP | PIF FREQ | 3 | |
| 31 | P/N-ID | 0 ~ 1 | PN ID | 1 CHIP | P/N-ID | 0 | |
| 32 | YS/YM MODE | 0 ~ 1 | YSM MODE | 1 CHIP | YSM MODE | 1 | |
| 33 | RGB ABCL | 0 ~ 1 | RGB ABCL | 1 CHIP | RGB ABCL | 1 | |
| 34 | DC RESTORATION | 0 ~ 3 | DC REST | 1 CHIP | DC RESTORATION | 3 | |
| 35 | BLACK STRETCH | 0 ~ 3 | B ST | 1 CHIP | BLACK STRETCH | 1 | |
| 36 | ABL START POINT | 0 ~ 3 | ABL ST | 1 CHIP | ABL START POINT | 3 | |
| 37 | ABL GAIN | 0 ~ 3 | ABL GA | 1 CHIP | ABL GAIN | 2 | |
| 38 | AKB MODE | 0 ~ 63 | AKB MODE | 1 CHIP | AKB MODE | 0 | |
| 39 | COLOR | 0 ~ 1 | COL G | 1 CHIP | COLOR | 1 | |
| 40 | V AGC | 0 ~ 1 | V AGC | 1 CHIP | V AGC | 0 | |
| 41 | V RAMP REF | 0 ~ 1 | V RAMP | 1 CHIP | V RAMP | 1 | |
| 42 | VSM PHASE | 0 ~ 1 | VSM PHASE | 1 CHIP | VSM PHASE | 0 | |
| 43 | BASS LEVEL ON | 0 ~ 3 | BA LV | SUR/SPA | BASS LEVEL | *1 | ⚠1 ⚠2 |
| 44 | BASS OFF AVM1 SP1 | 0 ~ 4 #1 | BA OFF 1 SP1 | SUR/SPA | BASS SW, LEVEL | 4 | |
| 45 | BASS OFF AVM2 SP1 | 0 ~ 4 #1 | BA OFF 2 SP1 | SUR/SPA | BASS SW, LEVEL | 4 | |
| 46 | BASS OFF AVM3 SP1 | 0 ~ 4 #1 | BA OFF 3 SP1 | SUR/SPA | BASS SW, LEVEL | 4 | |
| 47 | BASS OFF AVM1 SP2 | 0 ~ 4 #1 | BA OFF 1 SP2 | SUR/SPA | BASS SW, LEVEL | 4 | |
| 48 | BASS OFF AVM2 SP2 | 0 ~ 4 #1 | BA OFF 2 SP2 | SUR/SPA | BASS SW, LEVEL | 4 | |
| 49 | BASS OFF AVM3 SP2 | 0 ~ 4 #1 | BA OFF 3 SP2 | SUR/SPA | BASS SW, LEVEL | 4 | |
| 50 | BASS OFF AVM1 SP3 | 0 ~ 4 #1 | BA OFF 1 SP3 | SUR/SPA | BASS SW, LEVEL | 4 | |
| 51 | BASS OFF AVM2 SP3 | 0 ~ 4 #1 | BA OFF 2 SP3 | SUR/SPA | BASS SW, LEVEL | 4 | |
| 52 | BASS OFF AVM3 SP3 | 0 ~ 4 #1 | BA OFF 3 SP3 | SUR/SPA | BASS SW, LEVEL | 4 | |
| 53 | BASS OFF AVM1 SP4 | 0 ~ 4 #1 | BA OFF 1 SP4 | SUR/SPA | BASS SW, LEVEL | 4 | |
| 54 | BASS OFF AVM2 SP4 | 0 ~ 4 #1 | BA OFF 2 SP4 | SUR/SPA | BASS SW, LEVEL | 4 | |

*1

| NO. | ITEM | INITIAL DATA | |
|---|---|---|---|
| | | KF7, KF5, FG8, FX8, FX1 | FG5, FX5 |
| 43 | BASS LEVEL | 3 | 0 ⚠2 |

| NO. | EEPROM ITEM | DATA LENGTH | OSD | IC | DATA SETTING | INITIAL DATA | |
|---|---|---|---|---|---|---|---|
| 55 | BASS OFF AVM3 SP4 | 0 ~ 4 #1 | BA OFF 3 SP4 | SUR/SPA | BASS SW, LEVEL | 4 | |
| 56 | AGC SW | 0 ~ 1 | AGC SW | SUR/SPA | AGC SW | ON | |
| 57 | AGC ADJ | 0 ~ 3 | AGC AD | SUR/SPA | AGC ADJ | 2 | ⚠2 |
| 58 | FM LEVEL | #2 | FM L | NICAM | FM LEVEL | +1 | |
| 59 | IGR LEVEL | #2 | IGR L | NICAM | IGR LEVEL | +2 | |
| 60 | NICAM B/G LEVEL | #3 | BG L | NICAM | NICAM B/G LEVEL | -1 | |
| 61 | NICAM 1 LEVEL | #3 | I L | NICAM | NICAM I LEVEL | +4 | |
| 62 | NICAL D/K LEVEL | #3 | DK L | NICAM | NICAM D/K LEVEL | -1 | |
| 63 | LOWER ERROR | 0 ~ 255 | L ERR | NICAM | LOWER ERROR | 35 | |
| 64 | UPPER ERROR | 0 ~ 255 | U ERR | NICAM | UPPER ERROR | 70 | |
| 65 | IGR GAIN (9873H) | #4 | IGR G | NICAM | IGR GAIN (9873H) | 0 | |
| 66 | NICAM SPEED | 0 ~ 3 | N SPE | NICAM | N SPEED | 2 | |
| 67 | INTER/EXTER | 0 ~ 1 | IN/EX | NICAM | INTER/EXTER | 0 | |
| 68 | AUTO MUTE | 0 ~ 1 | AM | NICAM | AUTO MUTE | OFF | ⚠1 |
| 69 | AGC SW ON/OFF | 0 ~ 1 | AGC SW | NICAM | AGC SW | OFF | |
| 70 | AGC GAIN | 0 ~ 31 | AGC G | NICAM | AGC GAIN | 16 | |
| 71 | SYAKIT VOLUME 1 | 0 ~ 21 | SVOL 1 | SYAKIT | SVOLUME 1 | 0 | |
| 72 | SYAKIT VOLUME 2 | 0 ~ 3 | SVOL 2 | SYAKIT | SVOLUME 2 | 0 | |
| 73 | SYAKIT LOU | 0 ~ 1 | SLOT | SYAKIT | SLOU | 1 | |
| 74 | SYAKIT ATT | 0 ~ 7 | SATT | SYAKIT | SATT OUT | 0 | |
| 75 | SYAKIT BASS | 0 ~ 13 | SBASS | SYAKIT | S-BASS | 6 | |
| 76 | SYAKIT TREBLE | 0 ~ 13 | STRE | SYAKIT | S-TREBLE | 6 | |
| 77 | MAX LEVEL SYAKIT 1 | 0 ~ 5 | S1MA | | | 3 | |
| 78 | MAX LEVEL SYAKIT 2 | 0 ~ 5 | S2MA | | | 4 | |
| 79 | MAX LEVEL SYAKIT 3 | 0 ~ 5 | S3MA | | | 6 | |
| 80 | START LEVEL SYAKIT 1 | 0 ~ 63 | S1ST | | | 17 | |
| 81 | START LEVEL SYAKIT 2 | 0 ~ 63 | S2ST | | | 21 | |
| 82 | START LEVEL SYAKIT 3 | 0 ~ 63 | S3ST | | | 20 | |
| 83 | WIDE LEVEL SYAKIT 1 | 0 ~ 7 | S1W1 | | | 6 | |
| 84 | WIDE LEVEL SYAKIT 2 | 0 ~ 7 | S2W1 | | | 3 | |
| 85 | WIDE LEVEL SYAKIT 3 | 0 ~ 7 | S3W1 | | | 3 | |
| 86 | STOP LEVEL SYAKIT 1 | 0 ~ 5 | S1SP | | | 1 | |
| 87 | STOP LEVEL SYAKIT 2 | 0 ~ 5 | S2SP | | | 1 | |
| 88 | STOP LEVEL SYAKIT 3 | 0 ~ 5 | S3SP | | | 1 | |
| 89 | BASS MAX SYAKIT 1 | 0 ~ 15 | SBASS1 | | | 12 | |
| 90 | BASS MAX SYAKIT 2 | 0 ~ 15 | SBASS2 | | | 11 | |
| 91 | BASS MAX SYAKIT 3 | 0 ~ 15 | SBASS3 | | | 10 | |
| 92 | TREBLE MAX SYAKIT 1 | 0 ~ 15 | STRE1 | | | 12 | |
| 93 | TREBLE MAX SYAKIT 2 | 0 ~ 15 | STRE2 | | | 11 | |
| 94 | TREBLE MAX SYAKIT 3 | 0 ~ 15 | STRE3 | | | 10 | |
| 95 | BASS AVM1 SP1 | #6 | BASS 1 SP1 | | | -5 | |
| 96 | BASS AVM2 SP1 | #6 | BASS 2 SP1 | | | +2 | |
| 97 | BASS AVM3 SP1 | #6 | BASS 3 SP1 | | | +5 | |
| 98 | BASS AVM1 SP2 | #6 | BASS 1 SP2 | | | -5 | |
| 99 | BASS AVM2 SP2 | #6 | BASS 2 SP2 | | | 0 | |
| 100 | BASS AVM3 SP2 | #6 | BASS 3 SP2 | | | +5 | |
| 101 | BASS AVM1 SP3 | #6 | BASS 1 SP3 | | | -5 | |
| 102 | BASS AVM2 SP3 | #6 | BASS 2 SP3 | | | 0 | |
| 103 | BASS AVM3 SP3 | #6 | BASS 3 SP3 | | | *2 | ⚠2 |
| 104 | BASS AVM1 SP4 | #6 | BASS 1 SP4 | | | -5 | |
| 105 | BASS AVM2 SP4 | #6 | BASS 2 SP4 | | | -2 | |
| 106 | BASS AVM3 SP4 | #6 | BASS 3 SP4 | | | *2 | ⚠2 |
| 107 | TREBLE AVM1 SP1 | #6 | TRE 1 SP1 | | | -5 | |
| 108 | TREBLE AVM2 SP1 | #6 | TRE 2 SP1 | | | 0 | |
| 109 | TREBLE AVM3 SP1 | #6 | TRE 3 SP1 | | | +5 | |

*2

| NO. | ITEM | INITIAL DATA | |
|---|---|---|---|
| | | KF7, KF5, FG8, FX8, FX1 | FG5, FX5 |
| 103 | BASS AVM3 SP3 | +10 | +26 ⚠2 |
| 106 | BASS AVM3 SP4 | +10 | +26 ⚠2 |

## 2. SERVICE MODE 2.

| NO. | EEPROM ITEM | DATA LENGTH | OSD | IC | DATA SETTING | INITIAL DATA | |
|---|---|---|---|---|---|---|---|
| 110 | TREBLE AVM1 SP2 | #6 | TRE 1 SP2 | | | -5 | |
| 111 | TREBLE AVM2 SP2 | #6 | TRE 2 SP2 | | | +2 | |
| 112 | TREBLE AVM3 SP2 | #6 | TRE 3 SP2 | | | +8 | |
| 113 | TREBLE AVM1 SP3 | #6 | TRE 1 SP3 | | | -10 | |
| 114 | TREBLE AVM2 SP3 | #6 | TRE 2 SP3 | | | +1 | ⚠1 ⚠2 |
| 115 | TREBLE AVM3 SP3 | #6 | TRE 3 SP3 | | | *3 | ⚠2 |
| 116 | TREBLE AVM1 SP4 | #6 | TRE 1 SP4 | | | -10 | |
| 117 | TREBLE AVM2 SP4 | #6 | TRE 2 SP4 | | | +3 | ⚠2 |
| 118 | TREBLE AVM3 SP4 | #6 | TRE 3 SP4 | | | *3 | ⚠2 |
| 119 | BASS MODE AVM1 SP1 | ON/OFF #7 | BA MO 1 SP1 | | | OFF | |
| 120 | BASS MODE AVM2 SP1 | ON/OFF #7 | BA MO 2 SP1 | | | OFF | |
| 121 | BASS MODE AVM3 SP1 | ON/OFF #7 | BA MO 3 SP1 | | | ON | |
| 122 | BASS MODE AVM1 SP2 | ON/OFF #7 | BA MO 1 SP2 | | | OFF | |
| 123 | BASS MODE AVM2 SP2 | ON/OFF #7 | BA MO 2 SP2 | | | OFF | |
| 124 | BASS MODE AVM3 SP2 | ON/OFF #7 | BA MO 3 SP2 | | | ON | |
| 125 | BASS MODE AVM1 SP3 | ON/OFF #7 | BA MO 1 SP3 | | | OFF | |
| 126 | BASS MODE AVM2 SP3 | ON/OFF #7 | BA MO 2 SP3 | | | OFF | |
| 127 | BASS MODE AVM3 SP3 | ON/OFF #7 | BA MO 3 SP3 | | | ON | |
| 128 | BASS MODE AVM1 SP4 | ON/OFF #7 | BA MO 1 SP4 | | | OFF | |
| 129 | BASS MODE AVM2 SP4 | ON/OFF #7 | BA MO 2 SP4 | | | OFF | |
| 130 | BASS MODE AVM3 SP4 | ON/OFF #7 | BA MO 3 SP4 | | | ON | |
| 131 | CONTRAST AVM1 | #8 | CONT 1 | | | 55 | |
| 132 | CONTRAST AVM2 | #8 | CONT 2 | | | 57 | |
| 133 | CONTRAST AVM3 | #8 | CONT 3 | | | 60 | |
| 134 | CONTRAST AVM1 FL | #8 | CONT 1 FL | | | 55 | |
| 135 | CONTRAST AVM2 FL | #8 | CONT 2 FL | | | 57 | |
| 136 | CONTRAST AVM3 FL | #8 | CONT 3 FL | | | 60 | |
| 137 | COLOR AVM1 | #9 | COL 1 | | | 0 | |
| 138 | COLOR AVM2 | #9 | COL 2 | | | 0 | |
| 139 | COLOR AVM3 | #9 | COL 3 | | | 10 | |
| 140 | COLOR AVM1 FL | #9 | COL 1 FL | | | 0 | |
| 141 | COLOR AVM2 FL | #9 | COL 2 FL | | | 0 | |
| 142 | COLOR AVM3 FL | #9 | COL 3 FL | | | 10 | |
| 143 | SHARP AVM1 | #10 | SHARP 1 | | | -5 | |
| 144 | SHARP AVM2 | #10 | SHARP 2 | | | 0 | |
| 145 | SHARP AVM3 | #10 | SHARP 3 | | | 0 | |
| 146 | SHARP AVM1 FL | #10 | SHARP 1 FL | | | -5 | |
| 147 | SHARP AVM2 FL | #10 | SHARP 2 FL | | | 0 | |
| 148 | SHARP AVM3 FL | #10 | SHARP 3 FL | | | 0 | |
| 149 | γ- POINT AVM1 | #11 | G-POINT 1 | | | 3 | |
| 150 | γ- POINT AVM2 | #11 | G-POINT 2 | | | 2 | |
| 151 | γ- POINT AVM3 | #11 | G-POINT 3 | | | 1 | |
| 152 | γ- POINT AVM1 FL | #11 | G-POINT 1 FL | | | 3 | |
| 153 | γ- POINT AVM2 FL | #11 | G-POINT 2 FL | | | 2 | |
| 154 | γ- POINT AVM3 FL | #11 | G-POINT 3 FL | | | 1 | |
| 155 | SEARCH SPEED | #12 | S SPE | | | 450 | |
| 156 | OSD | 0 ~ 127 | OSD-H | | | 2 | |
| 157 | BUZZ | 0 ~ 1 | BUZZ | 1 CHIP | BUZZ | 0 | |
| 158 | AV AFC | 0 ~ 1 | AV AFC | | | 1 | |
| 159 | TEXT H | 0 ~ 63 | TEXT H | TEXT | | 34 | ⚠2 |
| 160 | TEXT V | 0 ~ 63 | TEXT V | TEXT | | 35 | ⚠1 |
| 161 | NVM | | NVM | EEPROM | | | |

*3

| NO. | ITEM | INITIAL DATA | |
|---|---|---|---|
| | | KF7, KF5, FG8, FX8, FX1 | FG5, FX5 |
| 115 | TREBLE AVM3 SP3 | +5 | +14 ⚠2 |
| 118 | TREBLE AVM3 SP4 | +5 | +14 ⚠2 |

# INITIAL SETTING

(1) Execute MCL 1/2 key to set the following data in EEPROM.

| | SREC/SRAC/SYI/STTM | | | | | SREC-SCA (SKD) | | | |
|---|---|---|---|---|---|---|---|---|---|
| R/C CODE | MCL 1 (R/C CODE 117h) | | | | | MCL 2 (R/C CODE 169h) | | | |
| TV-CH. | CH-No. | Fv (MHz) | S-SYSTEM | | | CH-No. | Fv (MHz) | S-SYSTEM | |
| 0 | SKIP OFF FREE | | | | | | 590.25 | 5.5 | B/G |
| 1 | E-2 | 48.25 | 5.5 | B/G | | AU-0 | 46.25 | 5.5 | B/G |
| 2 | E-4/B-3 | 62.25 | 5.5 | B/G | | AU-2 | 64.25 | 5.5 | B/G |
| 3 | OIR-3 | 77.25 | 6.5 | D/K | | AU-3 | 86.25 | 5.5 | B/G |
| 4 | E-5 | 175.25 | 5.5 | B/G | | AU-4 | 95.25 | 5.5 | B/G |
| 5 | E-6/B-5 | 182.25 | 5.5 | B/G | | AU-5A | 138.25 | 5.5 | B/G |
| 6 | OIR-7 | 183.25 | 6.5 | D/K | | AU-6 | 175.25 | 5.5 | B/G |
| 7 | OIR-8 | 191.25 | 6.5 | D/K | | AU-7 | 182.25 | 5.5 | B/G |
| 8 | E-8/B-7 | 196.25 | 5.5 | B/G | | AU-8 | 189.25 | 5.5 | B/G |
| 9 | J-9 | 199.25 | 4.5 | M | | AU-9 | 196.25 | 5.5 | B/G |
| 10 | E-10/B-9 | 210.25 | 5.5 | B/G | | AU-10 | 209.25 | 5.5 | B/G |
| 11 | E-12/B-11 | 224.25 | 5.5 | B/G | | AU-11 | 216.25 | 5.5 | B/G |
| 12 | E-21 | 471.25 | 5.5 | B/G | | SKIP OFF FREE | | | |
| 13 | I-23 | 487.25 | 6.0 | I | | SKIP OFF FREE | | | |
| 14 | E-25 | 503.25 | 5.5 | B/G | | SKIP OFF FREE | | | |
| 15 | E-34 | 575.25 | 5.5 | B/G | | SKIP OFF FREE | | | |
| 16 | E-35 | 583.25 | 5.5 | B/G | | SKIP OFF FREE | | | |
| 17 | E-37 | 599.25 | 5.5 | B/G | | SKIP OFF FREE | | | |
| 18 | J-38 | 621.25 | 4.5 | M | | SKIP OFF FREE | | | |
| 19 | OIR-42 | 639.25 | 6.5 | D/K | | SKIP OFF FREE | | | |
| 20 | B-50 | 703.25 | 5.5 | B/G | | SKIP OFF FREE | | | |
| 21 | I-54 | 735.25 | 6.0 | I | | SKIP OFF FREE | | | |
| 22 | E-58 | 767.25 | 5.5 | B/G | | SKIP OFF FREE | | | |
| 23 | E-64 | 815.25 | 5.5 | B/G | | SKIP OFF FREE | | | |
| 24 | I-69 | 855.25 | 6.0 | I | | SKIP OFF FREE | | | |
| 25 | E-69 | 855.25 | 5.5 | B/G | | SKIP OFF FREE | | | |
| 26 | US-2 | 55.25 | 4.5 | M | | SKIP OFF FREE | | | |
| 27 | A-6 | 83.25 | 4.5 | M | | SKIP OFF FREE | | | |
| 28 | JA-6 | 183.25 | 4.5 | M | | WE-28 | 527.25 | 5.5 | B/G |
| 29 | JA-8 | 193.25 | 4.5 | M | | SKIP OFF FREE | | | |
| 30 | JA-12 | 217.25 | 4.5 | M | | SKIP OFF FREE | | | |
| 31 | US-14 | 471.25 | 4.5 | M | | SKIP OFF FREE | | | |
| 32 | JA-14 | 477.25 | 4.5 | M | | SKIP OFF FREE | | | |
| 33 | JA-50 | 693.25 | 4.5 | M | | SKIP OFF FREE | | | |
| 34 | US-83 | 885.25 | 4.5 | M | | SKIP OFF FREE | | | |
| 35 | S-2 | 112.25 | 5.5 | B/G | | SKIP OFF FREE | | | |
| 36 | S-10 | 168.25 | 5.5 | B/G | | SKIP OFF FREE | | | |
| 37 | SKIP OFF FREE | | | | | AU-37 | 590.25 | 5.5 | B/G |
| 38 | S-20 | 294.25 | 5.5 | B/G | | SKIP OFF FREE | | | |
| 39 | S-41 | 463.25 | 5.5 | B/G | | SKIP OFF FREE | | | |
| 40 | SKIP OFF FREE | | | | | SKIP OFF FREE | | | |
| 41 | B-43 | 647.25 | 5.5 | B/G | | E-2 | 48.25 | 5.5 | B/G |
| 42 | B-45 | 663.25 | 5.5 | B/G | | E-4 | 62.25 | 5.5 | B/G |
| 43 | B-47 | 679.25 | 5.5 | B/G | | OI-3 | 77.25 | | |
| 44 | E-5 | 174.95 | 5.5 | B/G | | E-5 | 175.25 | 5.5 | B/G |
| 45 | E-5 | 175.55 | 5.5 | B/G | | OIR-7 | 183.25 | | |
| 46 | SKIP OFF FREE | | | | | OIR-8 | 191.25 | | |
| 47 | SKIP OFF FREE | | | | | E-10 | 210.25 | 5.5 | B/G |
| 48 | SKIP OFF FREE | | | | | E-12 | 224.25 | 5.5 | B/G |
| 49 | SKIP OFF FREE | | | | | I-23 | 487.25 | | |
| 50 | SKIP OFF FREE | | | | | E-25 | 503.25 | 5.5 | B/G |
| 51 | SKIP OFF FREE | | | | | E-34 | 575.25 | 5.5 | B/G |
| 52 | SKIP OFF FREE | | | | | E-37 | 599.25 | 5.5 | B/G |
| 53 | SKIP OFF FREE | | | | | JPN-38 | 621.25 | 4.5 | M |

| | SREC/SRAC/SYI/STTM | | | | | SREC-SCA (SKD) | | | |
|---|---|---|---|---|---|---|---|---|---|
| R/C CODE | MCL 1 (R/C CODE 117h) | | | | | MCL 2 (R/C CODE 169h) | | | |
| TV-CH. | CH-No. | Fv (MHz) | S-SYSTEM | | | CH-No. | Fv (MHz) | S-SYSTEM | |
| 54 | SKIP OFF FREE | | | | | OI-42 | 639.25 | | |
| 55 | SKIP OFF FREE | | | | | I-54 | 735.25 | 6.0 | |
| 56 | SKIP OFF FREE | | | | | E-58 | 767.25 | 5.5 | B/G |
| 57 | SKIP OFF FREE | | | | | E-64 | 815.25 | 5.5 | B/G |
| 58 | SKIP OFF FREE | | | | | I-69 | 855.25 | 6.0 | I |
| 59 | SKIP OFF FREE | | | | | JA-1 | 91.25 | 4.5 | M |
| 60 | SKIP OFF FREE | | | | | JA-6 | 183.25 | 4.5 | M |
| 61 | SKIP OFF FREE | | | | | JA-8 | 193.25 | 4.5 | M |
| 62 | SKIP OFF FREE | | | | | JA-12 | 217.25 | 4.5 | M |
| 63 | SKIP OFF FREE | | | | | US-14 | 471.25 | 4.5 | M |
| 64 | SKIP OFF FREE | | | | | JA-50 | 693.25 | 4.5 | M |
| 65 | SKIP OFF FREE | | | | | S-2 | 112.25 | 5.5 | B/G |
| 66 | SKIP OFF FREE | | | | | S-10 | 168.25 | 5.5 | B/G |
| 67 | SKIP OFF FREE | | | | | S-20 | 294.25 | 5.5 | B/G |
| 68 | SKIP OFF FREE | | | | | S-41 | 463.25 | 5.5 | B/G |
| 69 | SKIP OFF FREE | | | | | E-5 | 174.95 | 5.5 | B/G |
| 70 | SKIP OFF FREE | | | | | E-5 | 175.55 | 5.5 | B/G |
| ↓ | ↓ | | | | | ↓ | | | |
| 99 | SKIP OFF FREE | | | | | SKIP OFF FREE | | | |

# SHIPPING SETTING & CHECKING

(1) The following default data has been factory-set for the E2PROM.

| ITEMS | DATA SETTING | | | |
|---|---|---|---|---|
| | FACTORY-SET 1 | FACTORY-SET 2 | FACTORY-SET 3 | FACTORY-SET 4 |
| R/C | 28(H) | A8(H) | E8(H) | E9(H) |
| S-SYSTEM | ALL CH D/K | ALL CHI | ALL CH B/G | ALL CH B/G |
| LANGUAGE SELECT | CHINESE | CHINESE | ENGLISH | ARABIC |

| ITEMS | DATA SETTING | | | |
|---|---|---|---|---|
| | FACTORY-SET 5 | FACTORY-SET 6 | FACTORY-SET 7 | FACTORY-SET 8 |
| R/C | EA(H) | EB(H) | EC(H) | ED(H) |
| S-SYSTEM | ALL CH D/K | ALL CH B/G | ALL CH D/K | #(MCL) |
| LANGUAGE SELECT | RUSSIAN | MALAY | FRENCH | ENGLISH |

# FACTORY-SET 8 OPERATE MCL2

| ITEM | DATA SETTING |
|---|---|
| LAST POWER | ON |
| LAST TV/AV MODE | TV |
| LAST CH | CH1 |
| FLASH BACK | CH1 |
| FAVORITE CH1 | CH10 |
| FAVORITE CH2 | CH20 |
| FAVORITE CH3 | CH30 |
| FAVORITE CH4 | CH40 |
| 1 DIGIT/2 DIGIT | 2 DIGIT |
| VOLUME | 0 |
| H/P-VOLUME | 0 |
| ROTATION | 0 |
| SAVE | OFF |
| AV MODE | 2 |
| BALANCE | 0 |
| BLUE BACK | OFF |
| AUTO SELECT | ON |

*1⚠

| ITEM | DATA SETTING |
|---|---|
| VM | ON |
| TEXT | 1 |
| LNA | OFF |
| ON TIMER | IN ACTIVE |
| ON TIMER CH | IN ACTIVE |
| ON TIMER VOLUME | IN ACTIVE |
| REMINDER | IN ACTIVE |
| AFT | ALL CH ON |
| COLOR SYSTEM | ALL CH AUTO |
| SKIP | ALL CH OFF |
| NICAM ON/OFF | ALL CH ON |
| NICAM STEREO MODE | ALL CH STEREO |
| NICAM BILINGUAL MODE | ALL CH M1 |
| NICAM MONO MODE | ALL CH MONO |
| IGR ON/OFF | ALL CH ON |
| IGR STEREO MODE | ALL CH STEREO |
| IGR BILINGUAL MODE | ALL CH MAIN |

| MODE | 1 SOFT | 2 STANDARD | 3 DYNAMIC |
|---|---|---|---|
| CONTRAST | # | # | # |
| COLOR | # | # | # |
| BRIGHT | 0 | 0 | 0 |
| TINT | 0 | 0 | 0 |
| SHARPNESS | # | # | # |
| PEICTURE NR | OFF | OFF | OFF |
| WHITE TEMP. | 0 | 0 | 0 |
| SHAKIT | OFF | OFF | OFF |
| BASS + | # | # | # |
| SOR/SPA | OFF | OFF | OFF |
| LEVEL | 0 | 0 | 0 |
| BASS | # | 0 | # |
| TREBLE | # | 0 | # |

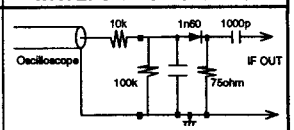
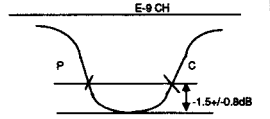
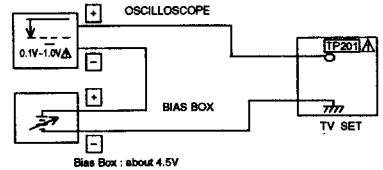
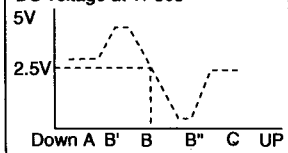
* CAST CH is CH2 only for FACTORY SET8. ⚠

# SERVICE MODE DATA

| MODEL | MAGNETIC FIELD (V.H) nT | | BACKGROUND | LANG. | S-SYS |
|---|---|---|---|---|---|
| B | 20,000 | 40,000 | 17000K⚠⚠ | CHINESE | I |
| C (SINGAPORE) | -10,000 | 40,000 | 17000K⚠⚠ | ENGLISH | B/G |
| F | -10,000 | 40,000 | 17000K⚠⚠ | ENGLISH | B/G |
| G | 30,000 | 20,000 | 18000K⚠⚠ | ARABIC | B/G |
| AUSTRALIA | -50,000 | 20,000 | 17000K⚠⚠ | ENGLISH | B/G |



# PIF ADJUSTMENT CHECKING

| NO | ADJUSTMENT POINT | ADJUSTMENT CONDITION / PROCEDURE | WAVEFORM OR OTHERS |
|---|---|---|---|
| 1 | Tuner IFT (PRESET) TU200 | (1) Get the tuner ready to receive the CH. E-10 signal, but with no signal input. Adjust the PLL data.<br>(2) Connect the sweep generator's output cable to the tuner antenna. (RF SWEEP)<br>(3) Adjust the sweep generator's to 80dBμV<br>(4) Connect the response lead (use LOW IMPEDANCE probe with wave detector ; see Fig.1) to the tuner's IF output terminal. (This terminal must have the probe alone connected).<br>(5) Set the RF AGC to 0 - 6 V with no saturation with the waveform.<br>(6) Adjust the tuner IF coil to obtain the waveform as shown in Fig. 2<br>Note : Be sure to keep the tuner cover in position during this adjustment. |  <br>Fig. 1<br>  <br>Fig. 2 |
| 2 | RF-AGC TAKE OVER POINT ADJUSTMENT (I²C BUS CONTROL) | (1) Receive "PAL COLOR BAR" signal. Signal Strength: 54±1dBμV (75Ω open)<br>(2) Connect the oscilloscope to TP201⚠ (Tuner's AGC Terminal) as shown in Fig. 3-1.<br>  <br>Fig. 3<br>(3) Call "RF-AGC" ⚠mode in service mode. Adjust the "RF-AGC" ⚠bus data to obtain the Tuner output pin drop 0.1V⚠1.0V below maximum voltage.<br>(4) Change the antenna input signal to 63 ~ 67dBμV, and make sure there is no noise.<br>(5) Turn up the input signal to 90 ~ 95dBμV to be sure that there is no cross modulation beat. | Note: For the 50Ω signal strength gauge, when not using 50/75 impedance adapter, signal strength is 52.1dBμV (75Ω open), instead of 54.1dBμV (75Ω open).<br>Precaution: The loss of using impedance adapter. |
| 3 | PIF VCO COIL ADJUSTMENT | (1) Do not receive any signal.<br>(2) Connect the digital voltmeter to TP803 (IC 800 #54X PIN) in the main unit.<br>(3) Call the "PIF VCO" Mode at the service mode.<br>(4) Verify that it is turned counterclockwise to 0V and adjust T800 to make DC voltage of TP803 become 2.5V ± 0.1V in the range. | DC voltage at TP803<br>  <br>Fig. 3-1<br>Adjust T800 to B point, between B' and B".<br>(Point A and C is NG)<br>*Turn the coil counterclockwise for the up direction and clockwise for the down direction. |

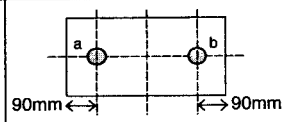
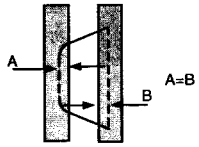
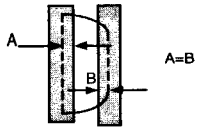
# SOUND ADJUSTMENT

| NO | ADJUSTMENT POINT | ADJUSTMENT CONDITION / PROCEDURE | WAVEFORM OR OTHERS |
|---|---|---|---|
| 1 | RF SUB SOUND (BUS ADJUSTMENT) CX 68KF5/ 29B-FX only | (1) Receive PAL B/G signal. Audio signal: 400Hz, 100% modulated (50KHz dev.)<br>(2) Connect the Oscilloscope to the Audio Out (L or R) terminal. (Terminate with 10 K ohm impedance).<br>(3) Call the "RF-S-SOUND" in service mode.<br>(4) Increase or decrease "RF S-SOUND" by using Volume UP/DOWN key, so that the 400Hz sine wave be 1.76 Vp-p. Tolerance: 1.76 Vp-p ± 0.10 Vp-p. | |
| 2 | SUB VOL (BUS ADJUSTMENT) | (1) Receive PAL Color Bar signal. Signal content: 400Hz 100% Mod.<br>(2) Connect the probel of the meter (*) to (SI) connector.<br>(3) Select SUB-VOL in the service mode.<br>(4) Adjust the SUB-VOL data to make the meter indicate 5.2 Vrms (at L-CH) Adjustment value: 5.2 Vrms ± 0.3 Vrms | Note:<br>*SURROUND OFF<br>*AV MODE (STANDARD)<br>*S-NORMAL state<br>*S-VOL Max<br>*Bass + OFF |
| 3 | NOISE MUTE CHECKING | (1) Receive "PAL COLOUR BAR" signal.<br>(2) Turn up the volume control to maximum, make sure the sound is heard from the speakers. Then put the unit in no signal state.<br>(3) Check the sound mute is effective.<br>(4) Finally turn sound level of CTV to minimum. | |

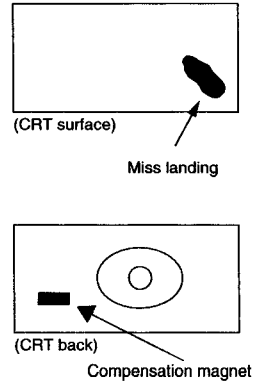
# SIF(NICAM/IGR) ADJUSTMENT

| NO | ADJUSTMENT POINT | ADJUSTMENT CONDITION / PROCEDURE | WAVEFORM OR OTHERS |
|---|---|---|---|
| 1 | VCO COIL T2300 #SX68KF7, 29B-FG5, 29B-FG8, 29B-FX8, 29B-FX5, 29B-FX1 only | (1) Receive (PAL COLOR bar). (Set the receiving frequency at AFT OFF VHF high frequency.)<br>(2) Connect the digital voltmeter to TP2300 or SC200 #PIN 1 (in the main unit)<br>(3) Verify that it is turned counterclockwise to 0V and clockwise to 5V, and adjust T2300 to make the DC voltage of TP2300 become 2.5±0.1V in the range.<br>*Single-unit adjustment<br>Vcc 5V ± 0.1V<br>IF input frequency 38.9MHz ±10KHz. Control it under these conditions.<br>Adjust T2300 to make the DC voltage of TP2300 (in the NICAM unit) become 2.5 ± 0.1V.<br>After single-unit adjustment, check the practical setup.<br>Align the receiving frequency to the select channel frequency. (AFT OFF)<br>The checked voltage must be 2.5V ± 1.0V.<br>(Take care that ± 1.0 is considered for the Vcc difference between the single unit and unit, Fo difference and so on, but is not the adjustment precision.) | |

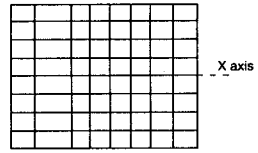
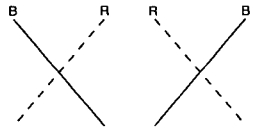
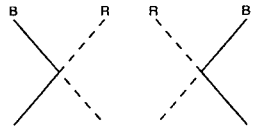
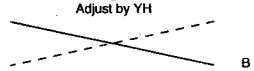
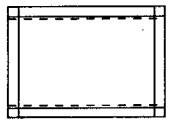
# PURITY ADJUSTMENT

| NO | ADJUSTMENT POINT | ADJUSTMENT CONDITION / PROCEDURE | WAVEFORM OR OTHERS |
|---|---|---|---|
| 1 | PURITY ADJUSTMENT | (1) Select the green monocolour screen with remote controller, and set the beam current of 1.6 mA△with the contrast control.<br>(2) Degauss the CRT enough with the degausing coil.<br>For the adjustable magnetic field<br>* BH = 0<br>* Bv = refer to the job instructions sheet.<br>Adjustable magnetic field is shown in page (12/30).<br>(3) The purity magnet must be previously set at the 0 magnetic field and the convergence must be adjusted to be rough.<br>With P-MG, adjust it to the center - rank A.<br>(4) Observe the points a, b, as shown in Fig.1 - 1 through the microscope. Move DY fore and aft to set the landing at the point (Rank A).<br>(5) If the a/b balance is poor, compensate it to the center "Rank AB".<br>(6) Align it to zero, keepingthe raster rotation in the east direction.<br>(7) Tighten up the deflection coil fastening screws. Tightening torque : 108N ± 20N (11Kgf ± 2Kgf)<br>(8) Checking the CRT corner area, bond the magnetic sheet to set the landing at Rank A for compensation.<br>Note: Apply the adjustment after aging with the beam current 1600△± 50 μA or more for 30 minutes or more.<br>Note: Select the service mode, and press the monocolour key of R/C for process, and the monocolour screen (green) will be selected.<br>* Every push of the monocolour key changes the screen as follows.<br> <br>* Adjustment for uniformity is change to another content. Please refer to the following page. |  <br>Fig. 1-1<br>  <br>Fig. 1-2 Rank A (On the right of CRT)<br>  <br>Fig. 1-3 Rank A (On the left of CRT)<br>* Continuously press the monocolour key 1 second or more, and the monocolour mode will be selected without the service mode.<br>Even with TEXT key or "R. G. Cy" key, it can be directly switched to each monocolour screen. |

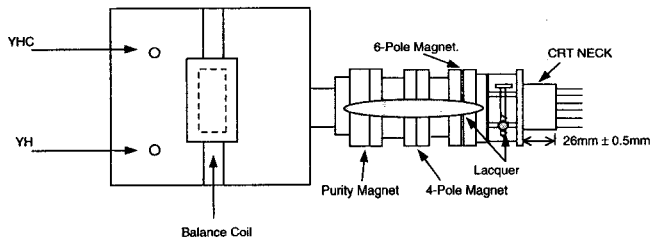
# UNIFORMITY ADJUSTMENT

| NO | ADJUSTMENT POINT | ADJUSTMENT CONDITION / PROCEDURE | WAVEFORM OR OTHERS |
|---|---|---|---|
| 1 | UNIFORMITY ADJUSTMENT (To perform after the purity and convergence adjustment.) | Before adjustment begin, Horizontal magnetic field = 0 G, Vertical magnetic field = Each destination adjustment magnetic field. Make sure degause it.<br><br>(North direction Red uniformity)<br>(1) Horizontal mf = Set to monocolour screen Red and adjust to +0.25 G.<br>(2) Pay attention to the edge of CRT, if the landing is poor, adjust by attaching the compensation magnet at the back of CRT. (Refer to Fig. 1)<br><br>(South direction Red uniformity)<br>(1) Horizontal mf = Set to monocolour screen Red and adjust to –0.25 G.<br>(2) Pay attention to the edge of CRT, if the landing is poor, adjust by attaching the compensation magnet at the back of CRT.<br><br>(The same method is applied for adjustment of monocolour screen Blue for blue uniformity, and changing both the magnetic field for North and south direction.)<br>* During the pasting of compensation magnet, use the crosshatch pattern. Make sure there is no blur or bend lines occur.<br>If the blur or bend lines are serious, adjust the location of compensation magnet to make it better. |  <br>Fig-1 |

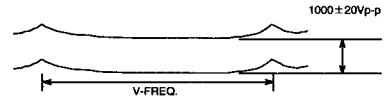
# CONVERGENCE ADJUSTMENT

| NO | ADJUSTMENT POINT | ADJUSTMENT CONDITION / PROCEDURE | WAVEFORM OR OTHERS |
|---|---|---|---|
| 1 | CONVERGENCE ADJUSTMENT (To be done after the purity adjustment.) | (1) Receive E-2CH (Crosshatch Pattern).<br>(2) Using the remote controller, call NORMAL mode.<br><br>(Static convergence)<br>(1) Overlap blue and red with the open- /closing angle and rotation of the 4-pole magnet.<br>(2) Overlap green on blue and red with the open-/ closing angle and rotation of the 6-pole magnet.<br><br>(Dynamic convergence)<br>(1) Fix the wedges in a position so that the deflection york neck is at the center of top bottom and left right. (Straight line and without any blur horizontal /vertical line.)<br>(2) Adjust the Red. Blue, upper and lower of the centre y axis on the screen by using the Volume (YH, YHC) at the deflection york. (Refer to Fig.1 and Fig. 2.)<br>(3) If the Horizontal Red. Blue (XV) on the screen centre X axis is shifted, correct the Red. Blue (XV) by adjusting the balance coil on the deflection york. (Refer to Fig. 3.)<br>(4) After confirm that there is no probrems on the entire screen, bond each wedge on CRT and glass tape on it. Fastening the screws of DY and magnet unit (purity, 4-pole and 6-pole), then coat the lacquer paint on DY fastening screw and magnet unit fastening screw.<br><br>⚠ (NOTE)<br>In case of poor convergence adjustment on the top and bottom of the screen, adjust DY by swing rightward and leftward. (Refer to Fig. 4.) |  <br>  <br>Fig-1<br>Adjust by YHC<br>  <br>Fig-2<br>Adjust by YH<br>  <br>Fig-3<br>Adjust by Balance Coil<br>  <br>Fig-4<br>Adjust by Swing DY |

Note: For CRT drawing, please refer to following page.




# FOCUS ADJUSTMENT

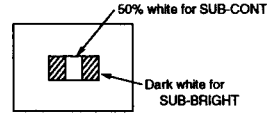
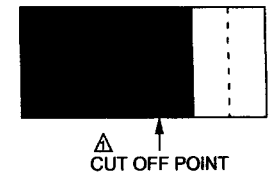
| NO | ADJUSTMENT POINT | ADJUSTMENT CONDITION / PROCEDURE | WAVEFORM OR OTHERS |
|---|---|---|---|
| 1 | DYNAMIC FOCUS ADJUSTMENT L1680 (In the power unit.) | (1) Received E-5 CH (Monoscope pattern).<br>(2) With the remote controller, make it normal.<br>(3) Connect the synchroscope to the eight pins of T1680.<br>(4) Turning L1680, adjust the amplitude of the horizontal frequency waveform to 1000 Vp-p.<br>  | Approx. 1000 Vp-p |
| 2 | FOCUS ADJUSTMENT FBT FOCUS-VR ⚠ | (1) Received E-5 CH (Monoscope pattern).<br>(2) With the remote controller, make it normal.<br>(3) Adjust the focus VR-1 (F1) to make the horizontal line around "575" on the bottom left of the screen as fine as possible.<br>(4) Adjust the focus VR-2 (F2) to make the vertical line around "575" on the bottom left of the screen as fine as possible.<br>(5) Repeat item 3 once again to adjust the focus. | |

# CUT OFF, BKGD ADJUSTMENT

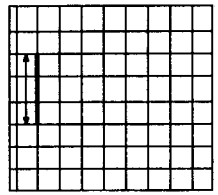
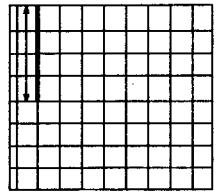
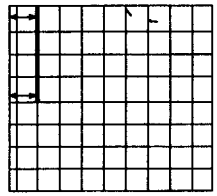
| NO | ADJUSTMENT POINT | ADJUSTMENT CONDITION / PROCEDURE | WAVEFORM OR OTHERS |
|---|---|---|---|
| 1 | CRT CUTOFF (CUT OFF BKGD) Service mode I²C BUS DATA ADJUSTMENT. | (1) Receive E-5 CH (Monoscope Pattern).<br>(2) Select P-NORM with the remote controller.<br>(3) Turn on the service SW, and select the CUT OFF BKGD mode .<br>(4) Select the screen VR 0/10.<br>(5) Press "-/--" key of the remote controller to select the horizontal centering mode.<br>(6) Turn the screen VR clockwise, and adjust the first lighting horizontal centering raster to slightly light.<br>(7) Adjust the CUT OFF data of two other colors, and coarsely adjust the horizontal centering to become white. (Note 1)<br>(8) Turn the screen VR in the opposite direction to the point where the horizontal centering raster goes out.<br>Note 1: Apply the adjustment after aging with the beam current 1,600⚠±50µA or more for 30 min or more.<br>(9) Press "-/--" key of the remote controller to select the normal mode. | * Before doing the adjustment, make sure the R/G/B-cut and B/G-Drive is at initial values.<br><br>On the monocolor screen of white or green. |
| 2 | WHITE BALANCE BACKGROUND (CUT OFF BKGD) I²C BUS DATA ADJUSTMENT. (RF SIGNAL) | (1) Receive E-5 CH (Monoscope Pattern).<br>(2) Select P-NORM with the remote controller.<br>(3) Connect the beam ammeter between TP1601 and TP1602.<br>(4) Coarsely adjust the beam current to approx. 1.8mA with R1633 (Sub-Contrast VR).<br>(5) Receive the window pattern with AV input. (PAL burst is generated with the signal generator.)<br>(6) With the data of G-drive and B-drive, adjust the color temperature 17,000K⚠ or 18,000K⚠ of the white peak to white.<br>(7) Adjust the right dark area of the window to 17,000K⚠ or 18,000K⚠ with R-cut off, G-cut off and B-cut off.<br>(8) Readjust the color temperature at the white peak.<br>(9) Check 17,000K⚠ or 18,000K⚠ at the low white.<br>Note1 : Apply this adjustment after aging with the beam current 1,600⚠±50µA or more for 30 min or more. (On the white or green minocolor screen)<br><br>*The colour temperature is based on the shipment initial setting table. | Note1:<br>R CUT OFF UP "1"KEY<br>DOWN "4"KEY<br>G CUT OFF UP "2"KEY<br>DOWN "5"KEY<br>B CUT OFF UP "3"KEY<br>DOWN "6"KEY<br>Data up/down is possible with the above comparison.<br>17,000 °K X: 0.261 Y: 0.261⚠<br>18,000 °K X: 0.255 Y: 0.255⚠<br>* 12,300 °K X: 0.272 Y: 0.275<br>(With Monolta color thermometer CA-100)<br>Note1:<br>G-DRIVE UP "7"KEY<br>DOWN ⇆ "KEY<br>B-DRIVE UP "8"KEY<br>DOWN "0"KEY<br>Data up/Down is possible with the above comparison. |
| 3 | WHITE BALANCE BACKGROUND (CUT OFF DVD BKGD) I²C BUS DATA ADJUSTMENT (DVD SIGNAL) | (1) The window pattern is received with DVD signal (component signal).<br>(2) Apply the adjustment in the same manner as 2-(5) and the subsequence above. (17,000 °K⚠ or 18,000 °K⚠) (G-DRIVE, B-DRIVE, R-CUT OFF, G-CUT OFF, B-CUT OFF) Apply the adjustment after the end of 2. | Note2: Use the window pattern of the signal generator for adjustment.<br><br>(PAL, colour burst is generated with signal generator.) |



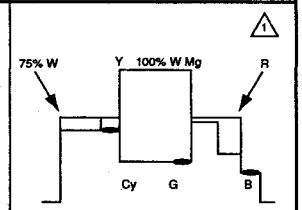
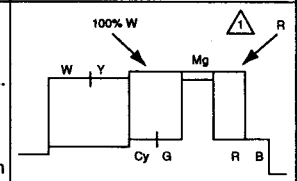
# SUB-CONT, SUB-BRIGHT ADJUSTMENT

| NO | ADJUSTMENT POINT | ADJUSTMENT CONDITION / PROCEDURE | WAVEFORM OR OTHERS |
|---|---|---|---|
| 4 | MAX BEAM R1759 | (1) Receive E-5 CH (Monoscope pattern) with standard mode.<br>(2) Make the image normal with the remote controller. (AV MODE: DYNAMIC)<br>(3) Connect the beam ammeter between TP1601 & TP1602.<br>Ammeter full scale-3mA range<br>TP1602 is connected at the - side of the ammeter.<br>TP1601 is connected at the + side of the ammeter.<br>(4) Adjust the beam current to 1.8mA±20µA with R1759 (sub-contrast VR).<br>Note1: Apply the adjustment after aging with the beam current 1,600⚠±50µA or more for 30 min or more.<br>(On the white or green monocolor screen) | In standard mode. |
| 5 | SUB-CONTRAST (SUB-CONT) I²C BUS ADJUSTMENT (RF SIGNAL) | (1) Receive the window pattern with AV input.<br>(2) Make the image normal with the remote controller.<br>(3) Select the SUB-CONTRAST adjustment mode with the remote controller, and adjust 50% white to 165±10⚠cd. | Note1: Use "Y" of Minolta color analyzer CA-100.<br>Note2: Use the PAL window pattern of the signal generator for adjustment. (PAL and colour burst are provided.)<br>⚠<br>Note3: Window pattern<br>  <br> |
| 6 | SUB-CONTRAST (SUB-CONT DVD) I²C BUS ADJUSTMENT (DVD SIGNAL) | (1) Select the DVD mode.<br>(2) Receive the signal of the DVD signal generator. (Component signal) (Window pattern)<br>(3) Make the picture normal with the remote controller.<br>(4) Select the SUB-CONTRAST adjustment mode (DVD) with the remote controller, and adjust 50 % white to 165 ± 10⚠cd. | |
| 7 | SUB-BRIGHTNESS ADJUSTMENT (SUB-BRI) I²C BUS ADJUSTMENT (RF SIGNAL) | (1) Receive the window pattern with AV input.<br>(2) Make the image normal with the remote controller.<br>(3) Select the sub-bright adjustment mode with the remote controller, and adjust the right dark white area of the window pattern to 5.5 ± 0.5⚠ cd. | Reference:<br>*When E-2 CH (Crosshatch pattern) or equivalent signal is received.<br>1. Make the image normal with the remote controller.<br>2. Adjust the 3rd⚠(1 thru 5 from the left) black of the window pattern to sink.<br>  <br> |
| 8 | SUB-BRIGHTNESS (SUB-BRI DVD) I²C BUS ADJUSTMENT (DVD SIGNAL) | (1) Select the DVD mode.<br>(2) Receive the signal of the DVD signal generator. (Component signal) (Window pattern)<br>(3) Make the picture normal with the remote controller.<br>(4) Select the SUB-BRIGHT adjustment mode (DVD) with the remote controller, and adjust the right dark white area of the window pattern to 5.5 ± 0.5⚠cd. | |

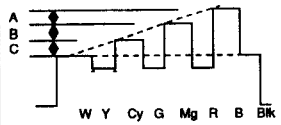
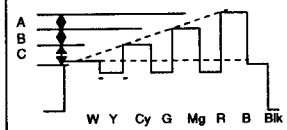
# HORIZONTAL, VERTICAL, DEFLECTION LOOP AND ADJUSTMENT

| NO | ADJUSTMENT POINT | ADJUSTMENT CONDITION / PROCEDURE | WAVEFORM OR OTHERS |
|---|---|---|---|
| | MAIN SCREEN ADJUSTMENT | | |
| 1 | V-AMP 50 | Adjust the overscan to 8.5 %. (E-5) | The receiving channel in ( ) are the following signals.<br>(E-2): Crosshatch (50 Hz)<br>(E-5): Monoscope (50 Hz) |
| | V-LINE 50 | Adjust the linearity to the best. | |
| | V S-CORR 50 | Already preset (**). (Adjust this unless the linearity is achieved.) | |
| | V-CENT 50 | Align the center of the screen to the geometric center of CRT. (E-5) | |
| | H-CENT 50 | Align the center of the screen to the geometric center of CRT. (E-5) | |
| | H-SIZE 50 | Adjust the overscan to 8.5 %. (E-5) | |
| | E/W-PAR 50 | Adjust the 2nd⚠ vertical line from the left⚠ end of crosshatch pattern so that the middle 4 blocks are straight. (E-2) (Refer to Fig. 1-1.) |  ⚠2<br>Fig 1-1 |
| | E/W-COR 50 | Adjust the 2nd⚠ vertical line from the left⚠ end of crosshatch pattern so that the top are straight. (E-2) (Refer to Fig. 1-2.) | |
| | TRAPE 50 | Adjust the 2nd⚠ vertical line from the left⚠ end of crosshatch pattern so that the D1 (center area of the first vertical line - edge of screen) & D2 (top area of the first vertical line - edge of screen) are same. |  ⚠2<br>Fig 1-2 |
| | V-ENT | Already preset. (**) | |
| | H-ENT | Already preset. (**) | |
| | OTHER | On the items of V-AMP 60, V-LINE 60, V S-CORR 60, V-CENT 60, H-CENT 60, H-SIZE 60, E/W-PAR 60, E/W-COR 60 and TRAPE 60, the compensation data is automatically input if the 50 Hz mode adjustment is done. |  D2 D1 ⚠2<br>Fig 1-3 |
| | I²C BUS ADJUSTMENT | ⚠<br>Attention)<br>Don't change 50 Hz mode data after adjust 60 Hz mode data.<br>Because 60 Hz mode data follow 50 Hz mode data automatically. | However, if it is largely deviated when it is checked in the 60 Hz mode, readjust it in the 60 Hz mode. |

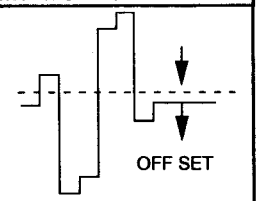
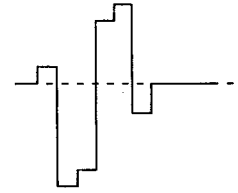
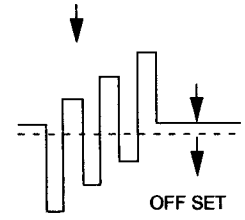
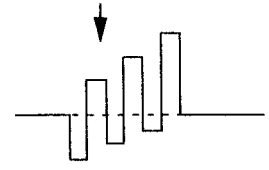
# PAL CHROMA ADJUSTMENT

| NO | ADJUSTMENT POINT | ADJUSTMENT CONDITION / PROCEDURE | WAVEFORM OR OTHERS |
|---|---|---|---|
| 1 | SUB COLOUR (SUB-COL) (I²C BUS CONTROL) (RF SIGNAL) | (1) Receive the E-10 CH (PAL Colour Bar) signal.<br>(2) Make the picture normal with the remote controller.<br>(3) Connect the oscilloscope to TP802...(KY)4 pin. (Use Probe10:1)<br>Range : 2V / Div.<br>Sweep time: 20μ sec / Div.<br>(4) Set the "SUB-COL" adjustment mode with the remote controlller, and vary the sub colour data to make 75% W of the colour bar and RED at the same level for adjustment shown in Fig. 1-1. |  <br>Fig. 1-1 |
| 2 | SUB COLOUR (SUB-COL DVD) (I²C BUS CONTROL) (DVD SIGNAL) | (1) DVD signal is received. (half colour bar signal)<br>(2) Make the picture normal with the remote controller.<br>(3) Connect the oscilloscope to TP802...(KY) 4 pin. (10:1 prove is used.)<br>Range: 2 V/Div.<br>Sweep time: 20 μsec/Div.<br>(4) Set the "SUB-COL DVD" adjustment mode with the remote controller, and vary the sub colour data to make 100 % W of the colour bar and RED at the same level for the adjustment shown in Fig. 1-2.<br><br>(Use the colour bar pattern of the signal generator for adjustment.) |  <br>Fig. 1-2 |

# NTSC CHROMA ADJUSTMENT

| NO | ADJUSTMENT POINT | ADJUSTMENT CONDITION / PROCEDURE | WAVEFORM OR OTHERS |
|---|---|---|---|
| 1 | SUB-TINT<br>(SUB-TINT)<br>(I²C BUS<br>CONTROL)<br>(RF SIGNAL) | (1) Select the SUB-TINT adjustment mode (automatic Y cut) to receive NTSC colour bar signal with AV input.<br>(2) Connect the oscilloscope to TP801.<br>Range : 50 mV/Div. (AC)<br>(Use Probe 10:1)<br>Sweep time : 10 µsec/Div.<br>(3) Vary the sub tint data to adjust the waveform to be gained as shown in Fig 1-1.<br>TP801.....(KY) 6 pin |  <br>**Fig. 1-1**<br>A=B=C |
| 2 | SUB-TINT<br>(SUB-TINT DVD)<br>(I²C BUS<br>CONTROL)<br>(DVD SIGNAL) | (1) Select the "SUB-TINT DVD" adjustment mode (automatic Y cut) to receive the DVD colour bar signal.<br>(2) Connect the oscilloscope to TP801.<br>Range : 50 mV/Div. (AC)<br>(Use Probe 10:1)<br>Sweep time : 10 µsec/Div.<br>(3) Vary the sub tint data to adjust the waveform to be gained as shown in Fig. 1-2.<br>(4) Release/off the adjustment mode.<br>TP801.....(KY) 6 pin<br><br>(Use the colour bar pattern of the signal generator for adjustment.) |  <br>**Fig. 1-2**<br>A=B=C |

# SECAM CHROMA ADJUSTMENT

| NO | ADJUSTMENT POINT | ADJUSTMENT CONDITION / PROCEDURE | WAVEFORM OR OTHERS |
|---|---|---|---|
| 1 | SECAM BLACK LEVEL R-Y/B-Y I²C BUS ADJUSTMENT<br><br># 29B-FG5, 29B-FG8, 29B-FX5, 29B-FX8, 29B-FX1 only. | (1) Receive (SECAM COLOR BAR).<br>(2) Select SECAM black level adjustment R-Y mode.<br>(3) Connect the oscilloscope to pin 20 of IC800 (TP802/R out).<br>Range: 10 mV/Div.<br>Sweep time: 20 µsec/Div.<br>(Prove 10:1 is used.)<br>(4) Vary R-Y data to minimize the offset between the non-signal line and signal line as shown in Fig. 2-1(b).<br>(5) Select SECAM black level adjustment B-Y mode.<br>(6) Reconnect the oscilloscope to TP801 .....(KY) 6 pin.<br>The conditions are the same as in Item 3.<br>(7) Vary B-Y data to minimize the offset between the non-signal line and signal line as shown in Fig. 2-2(b). |  <br>**Fig. 2-1(a)**<br>  <br>**Fig. 2-1(b)**<br>  <br>**Fig. 2-2(a)**<br>  <br>**Fig. 2-2(b)** |

# FUNCTION OPERATION CHECKING (1) (VIDEO & AUDIO)

| NO | ADJUSTMENT POINT | ADJUSTMENT CONDITION / PROCEDURE | WAVEFORM OR OTHERS |
|---|---|---|---|
| 1 | CONTRAST Key | (1) Receive "Monoscope Pattern" signal.<br>(2) Press to Menu mode, then select Picture mode and set to select CONTRAST.<br>(3) Press Volume Up/Down key to check whether the CONTRAST effect is OK or not. | |
| 2 | COLOUR Key | (1) Receive "Colour Bar" signal.<br>(2) Press to Menu mode, then select Picture mode and set to select COLOUR.<br>(3) Press Volume Up/Down key to check whether the COLOUR effect is OK or not. | |
| 3 | BRIGHTNESS Key | (1) Receive "Monoscope Pattern" signal.<br>(2) Press to Menu mode, then select Picture mode and set to select BRIGHTNESS.<br>(3) Press Volume Up/Down key to check whether the BRIGHTNESS effect is OK or not. | |
| 4 | TINT Key | (1) Receive the "NTSC Colour Bar" signal thru AV in.<br>(2) Press to Menu mode, then select Picture mode and set to select TINT.<br>(3) Press Volume Up/Down key to check TINT, UP for GREEN direction and DOWN for RED direction whether is OK or not. | |
| 5 | SHARPNESS Key | (1) Receive "Monoscope Pattern" signal.<br>(2) Press to Menu mode, then select Picture mode and set to select SHARPNESS.<br>(3) Press Volume Up/Down key to check whether the SHARPNESS effect is OK or not. | |
| 7 | NORMAL Key | (1) Once in Picture mode, and the NORMAL key is pressed, all the settings will be present to normal setting.<br>(Normal setting value for every mode, refer on page (12/30)). | Note:<br>If nothing is display mean contrast, colour, bright, tint, sharpness are all in normal setting. |
| 8 | WHITE TEMP | (1) Receive "Monoscope Pattern" signal.<br>(2) Set FUNCTION to select WHITE TEMP.<br>(3) Press Volume Up/Down key to check WHITE TEMP Option, STANDARD: NORMAL SETTING, WARM for more REDDISH direction changing, COOL for more BLUISH direction changing. | |

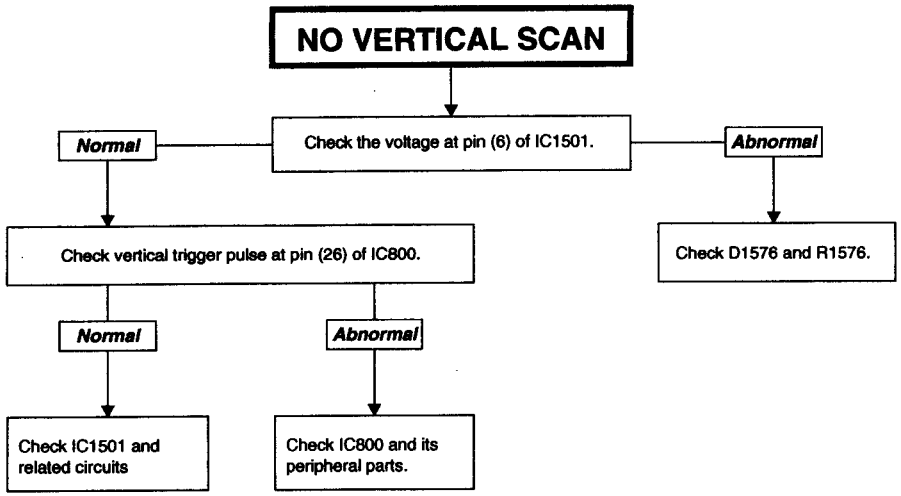
# FUNCTION OPERATION CHECKING (2) (VIDEO & AUDIO)

| NO | ADJUSTMENT POINT | ADJUSTMENT CONDITION / PROCEDURE | WAVEFORM OR OTHERS |
|---|---|---|---|
| 9 | COLOUR SYSTEM<br><br>(2) 29B-FG5, 29B-FG8, 29B-FX5, 29B-FX8, 29B-FX1 only. | (1) Receive the "PAL COLOUR BAR" signal, press the COLOUR SYSTEM key to select modes except PAL, check the COLOUR is not working properly.<br>Then, select the "PAL" mode. Check again its colour so that it is working properly.<br>(2) Receive "SECAM COLOUR BAR" signal, press COLOUR SYSTEM key to select modes except SECAM, check the COLOUR is not working properly.<br>Then, select the "SECAM" mode. Check again its colour so that it is working properly.<br>(3) Receive "NTSC 3.58" signal, press COLOUR SYSTEM key to select modes except NTSC 3.58, check the COLOUR is not working properly.<br>Then, select the "NTSC 3.58" mode. Check again its colour so that it is working properly.<br>(4) Receive "NTSC 4.43/3.58 COLOUR BAR" signal thru AV, press COLOUR SYSTEM key to select modes except N4.43, check the COLOUR is not working properly. Then, select the "NTSC 4.43" mode. Check again its colour so that it is working properly. | |
| 10 | SOUND SYSTEM<br><br># 29B-FG5, 29B-FG8, 29B-FX5, 29B-FX8, 29B-FX1 only. | (1) Receive "PAL-D/K" signal, press the "SOUND SYSTEM" to select B/G, I. Check the sound output is not working properly. Select D/K and check the sound output to make sure it is working properly.<br>(2) Receive "PAL-I" signal, press the "SOUND SYSTEM" to select B/G, D/K. Check the sound output is not working properly. Select I and check the sound output to make sure it is working properly.<br>(3) Receive "PAL-B/G" signal, press the "SOUND SYSTEM" to select I, D/K. Check the sound output is not working properly. Select B/G and check the sound output to make sure it is working properly. | |
| 12 | HEADPHONE OUTPUT CHECKING | (1) Receive PAL COLOR BAR with sound 400 Hz, 100% modulation (± 50 kHz Dev)<br>(2) Maximum volume, and check the headphone output with 400 Hz sound and no sound out from speaker.<br>(Ref.: Output Level of Headphone is as Following:)<br><br>⚠ SUB-VOL ADJ. / H/P Output (Open)<br>63 / 1.0 Vp-p<br>40 / 500 mVp-p | |

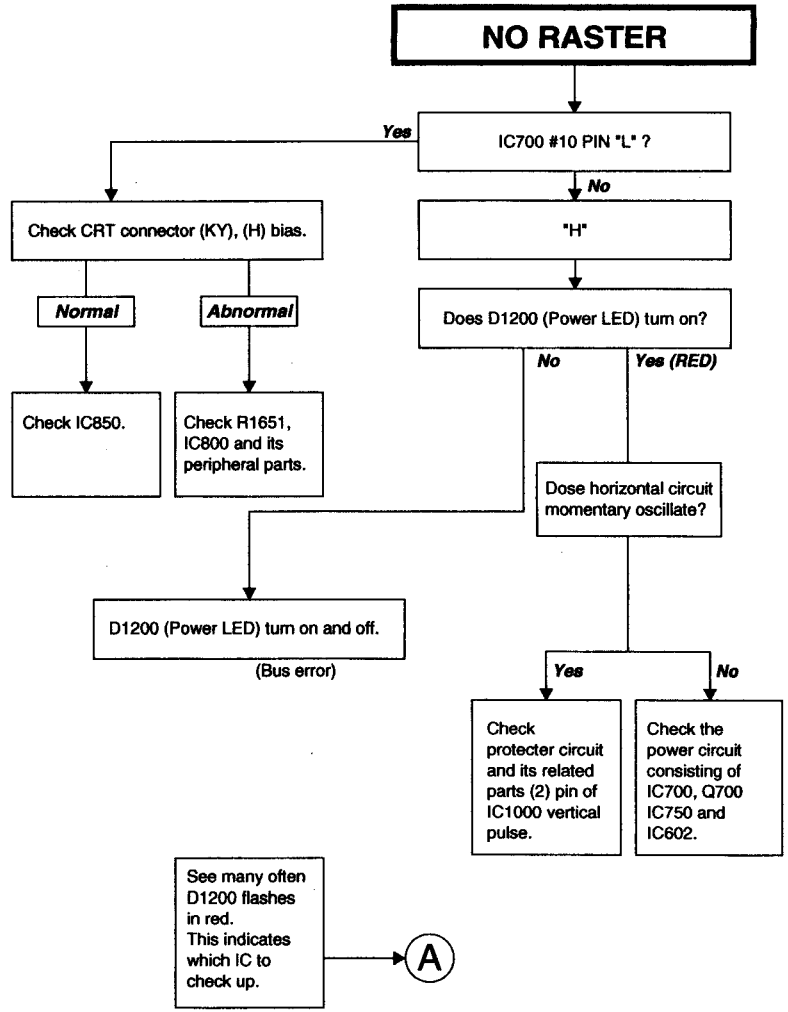
# PROTECTOR OPERATION CHECKING

| NO | ADJUSTMENT POINT | ADJUSTMENT CONDITION / PROCEDURE | WAVEFORM OR OTHERS |
|---|---|---|---|
| 1 | H, V PROTECTOR | (1) Receive E-5 CH (Monoscope pattern).<br>(2) Connect the bias box to the cathode side (R1662 side) of D1621.<br>(3) Set the voltage of the bias box at 15 V, and verify that the protector does not operate.<br>(4) Set the voltage of the bias box at 24 V, and verify that the protector does operate. | Reference:<br>Approx. 17.7 V as ordinary. |
| 2 | OTHER PROTECTORS | * Correspondence for short circuit of smoothening electrolysis of +B line and so on. To check the operation of the protector and so on, take care for the breakage, deterioration and so on of each element. | |

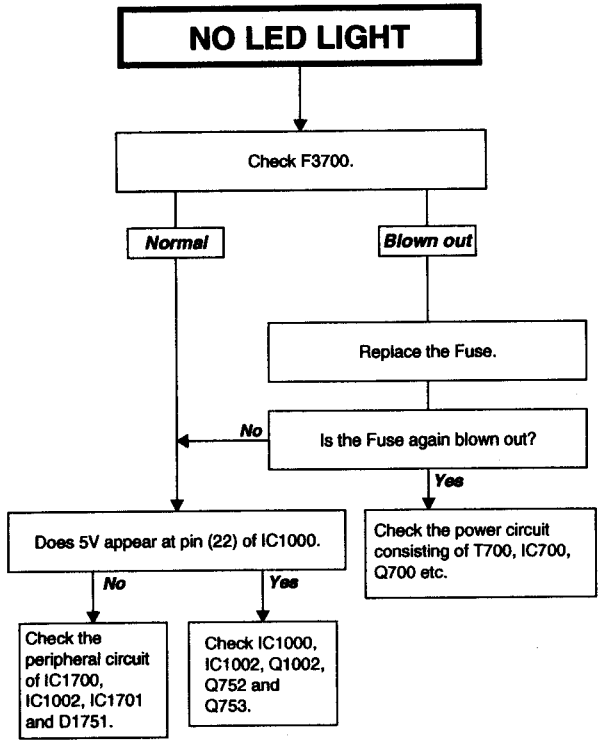
# TROUBLE SHOOTING TABLE




# TROUBLE SHOOTING TABLE (Continued)

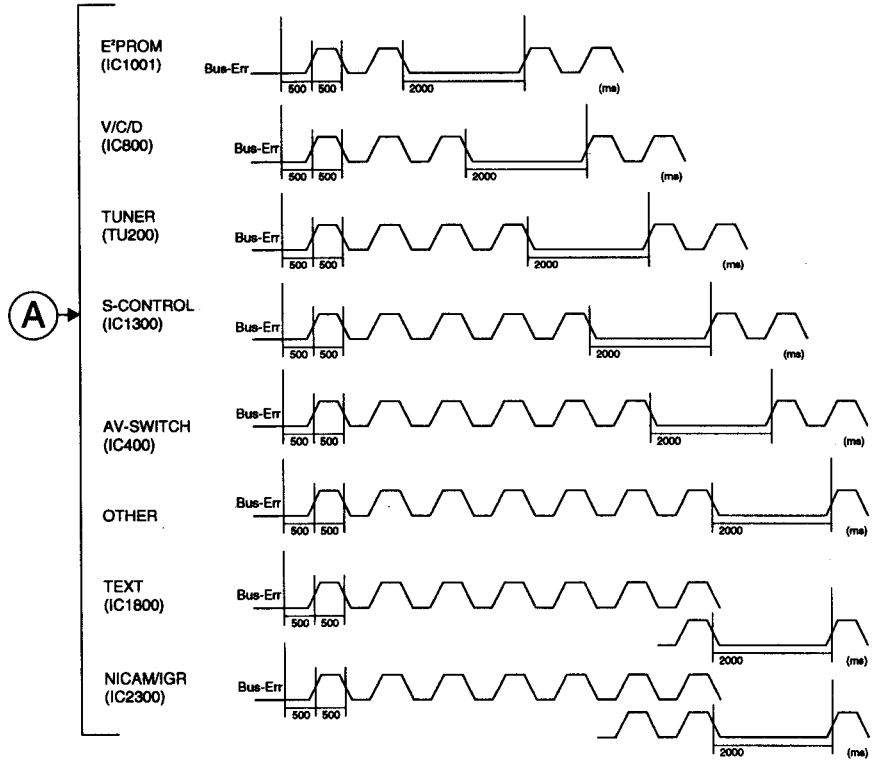

NO RASTER
IC700 #10 PIN "L" ?
Yes
No
Check CRT connector (KY), (H) bias.
"H"
Normal
Abnormal
Does D1200 (Power LED) turn on?
No
Yes (RED)
Check IC850.
Check R1651, IC800 and its peripheral parts.
Dose horizontal circuit momentary oscillate?
D1200 (Power LED) turn on and off.
(Bus error)
Yes
No
Check protecter circuit and its related parts (2) pin of IC1000 vertical pulse.
Check the power circuit consisting of IC700, Q700 IC750 and IC602.
See many often D1200 flashes in red.
This indicates which IC to check up.
A

# TROUBLE SHOOTING TABLE (Continued)

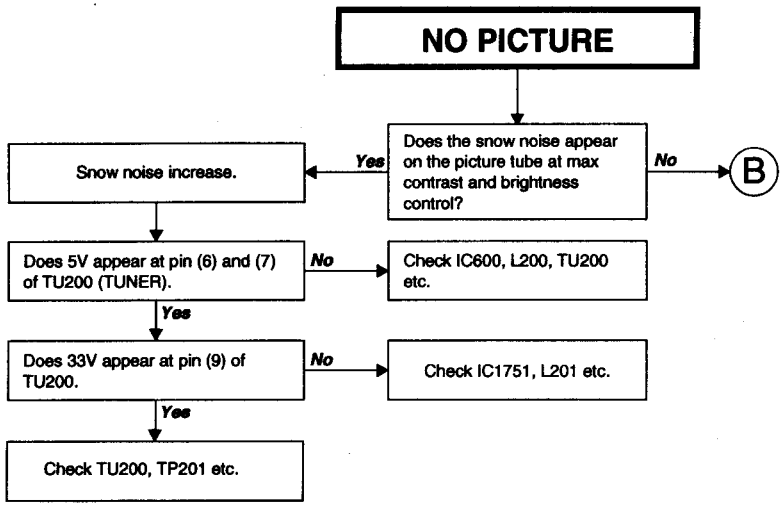

NO LED LIGHT
Check F3700.
Normal
Blown out
Replace the Fuse.
No
Is the Fuse again blown out?
Yes
Check the power circuit consisting of T700, IC700, Q700 etc.
Does 5V appear at pin (22) of IC1000.
No
Yes
Check the peripheral circuit of IC1700, IC1002, IC1701 and D1751.
Check IC1000, IC1002, Q1002, Q752 and Q753.



# TROUBLE SHOOTING TABLE (Continued)

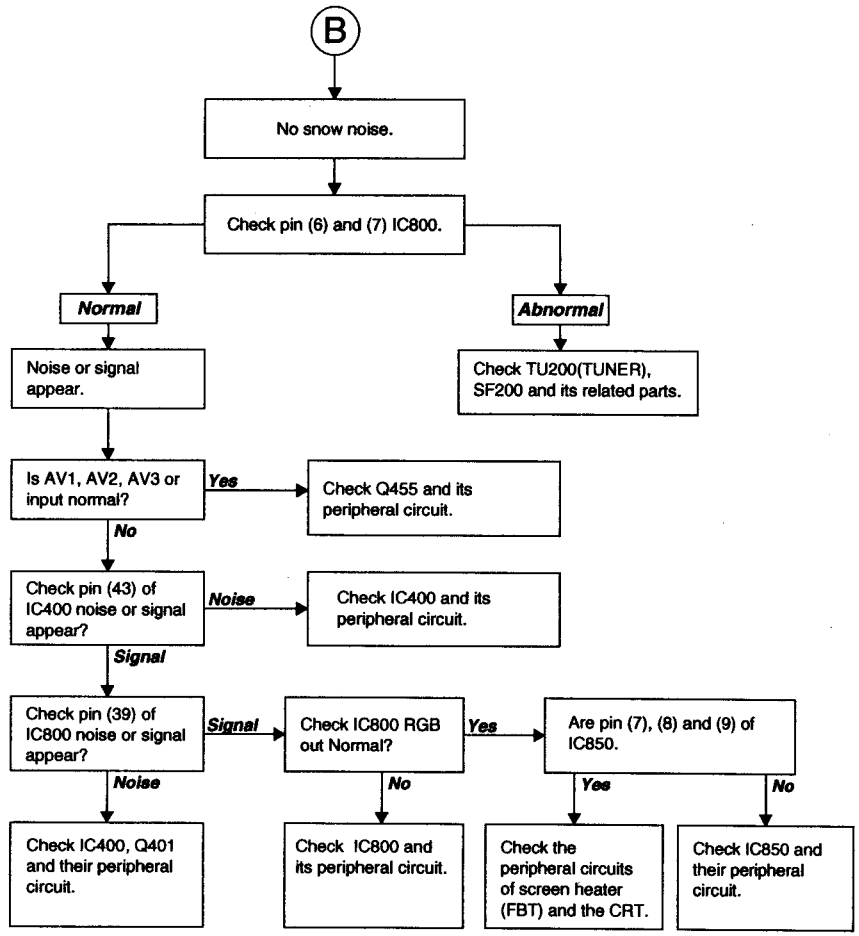


# TROUBLE SHOOTING TABLE (Continued)

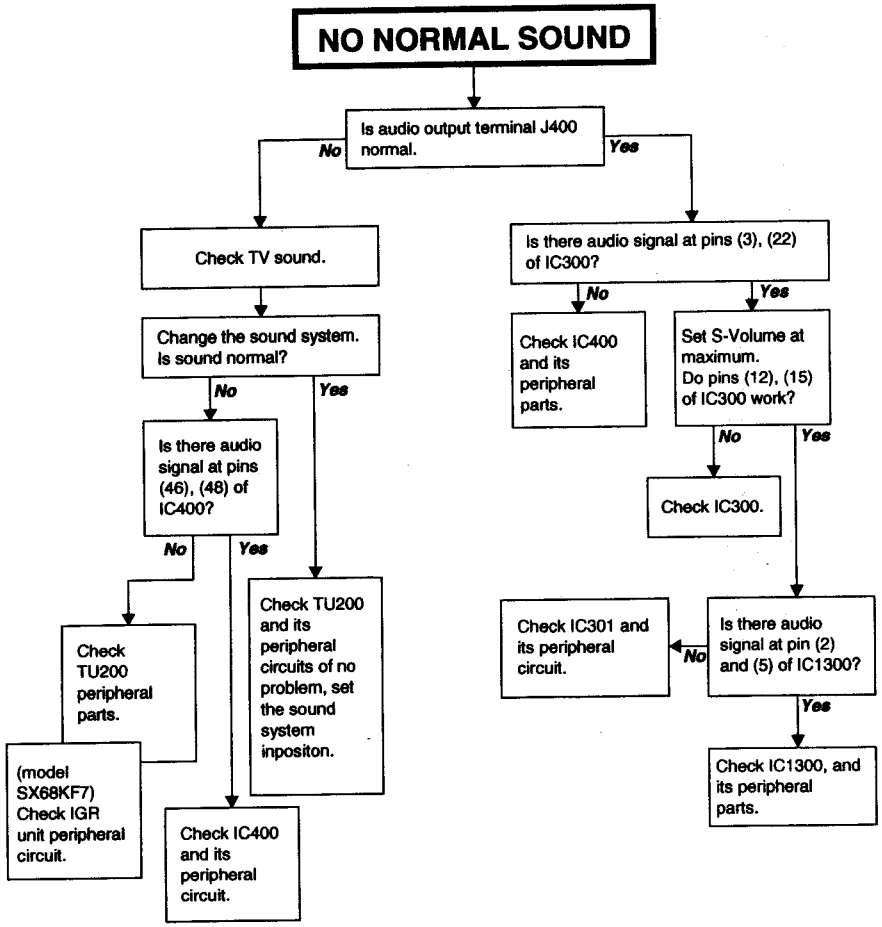




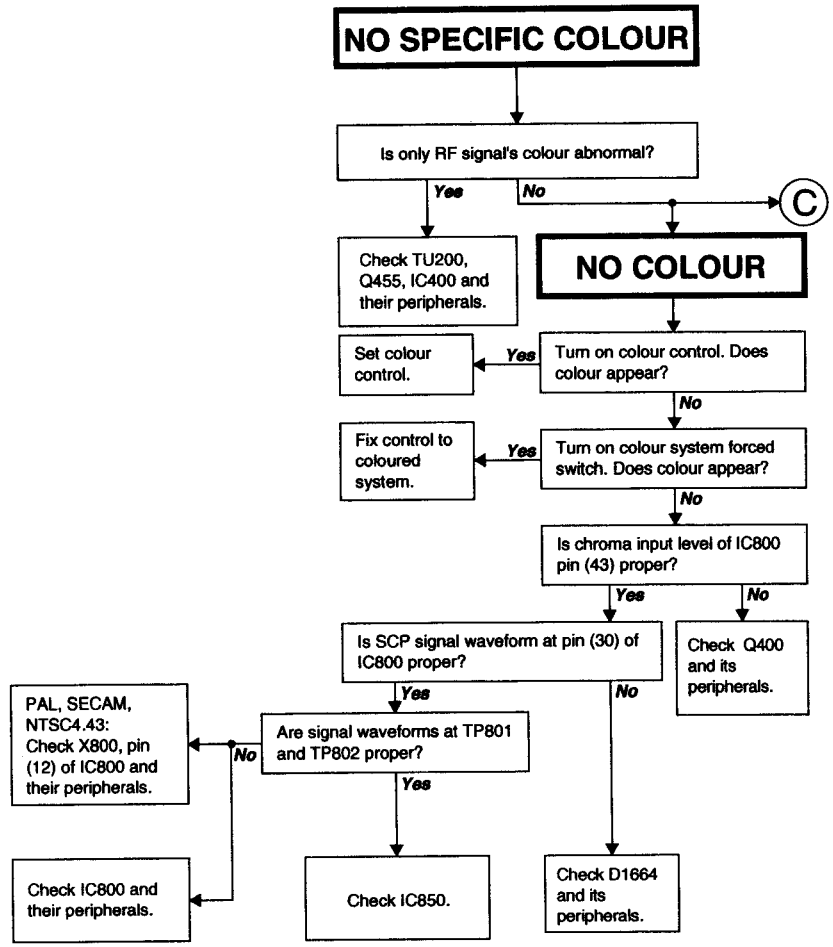

# TROUBLE SHOOTING TABLE (Continued)


B
No snow noise.
Check pin (6) and (7) IC800.
Normal
Abnormal
Noise or signal appear.
Check TU200(TUNER), SF200 and its related parts.
Is AV1, AV2, AV3 or input normal?
Yes
Check Q455 and its peripheral circuit.
No
Check pin (43) of IC400 noise or signal appear?
Noise
Check IC400 and its peripheral circuit.
Signal
Check pin (39) of IC800 noise or signal appear?
Signal
Check IC800 RGB out Normal?
Yes
Are pin (7), (8) and (9) of IC850.
Noise
No
Yes
No
Check IC400, Q401 and their peripheral circuit.
Check IC800 and its peripheral circuit.
Check the peripheral circuits of screen heater (FBT) and the CRT.
Check IC850 and their peripheral circuit.

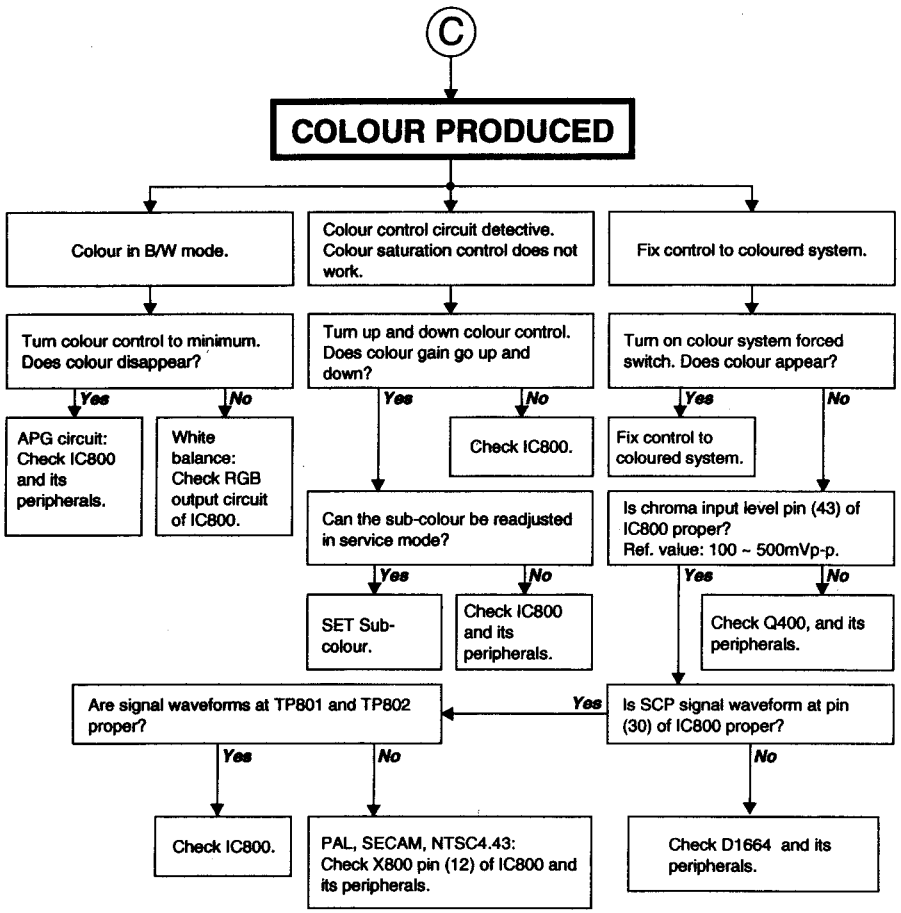
# TROUBLE SHOOTING TABLE (Continued)


NO NORMAL SOUND
Is audio output terminal J400 normal.
No
Yes
Check TV sound.
Change the sound system. Is sound normal?
No
Yes
Is there audio signal at pins (46), (48) of IC400?
No
Yes
Check TU200 peripheral parts.
(model SX68KF7) Check IGR unit peripheral circuit.
Check IC400 and its peripheral circuit.
Check TU200 and its peripheral circuits of no problem, set the sound system inpositon.
Is there audio signal at pins (3), (22) of IC300?
No
Yes
Check IC400 and its peripheral parts.
Set S-Volume at maximum. Do pins (12), (15) of IC300 work?
No
Yes
Check IC300.
Check IC301 and its peripheral circuit.
No
Is there audio signal at pin (2) and (5) of IC1300?
Yes
Check IC1300, and its peripheral parts.

# TROUBLE SHOOTING TABLE (Continued)



# TROUBLE SHOOTING TABLE (Continued)


C
COLOUR PRODUCED
Colour in B/W mode.
Colour control circuit detective. Colour saturation control does not work.
Fix control to coloured system.
Turn colour control to minimum. Does colour disappear?
Turn up and down colour control. Does colour gain go up and down?
Turn on colour system forced switch. Does colour appear?
Yes
No
APG circuit: Check IC800 and its peripherals.
White balance: Check RGB output circuit of IC800.
Check IC800.
Fix control to coloured system.
Can the sub-colour be readjusted in service mode?
Is chroma input level pin (43) of IC800 proper? Ref. value: 100 ~ 500mVp-p.
SET Sub-colour.
Check IC800 and its peripherals.
Check Q400, and its peripherals.
Are signal waveforms at TP801 and TP802 proper?
Is SCP signal waveform at pin (30) of IC800 proper?
Check IC800.
PAL, SECAM, NTSC4.43: Check X800 pin (12) of IC800 and its peripherals.
Check D1664 and its peripherals.

# 规　　格

| | |
|---|---|
| 电源 | 交流110～240V,50/60Hz |
| 功率消耗 | 165W |
| 聚焦 | 自聚焦系统 |
| 焦点 | 双电位,单电位静电焦点 |
| 扫描偏转 | 磁致偏转 |
| 中频 | |
| 图象中频载波频率 | 38.9MHz |
| 声音中频载波频率 | |
| 6.5MHz | 32.4MHz |
| 6.0MHz | 32.9MHz |
| 5.74MHz | 33.16MHz |
| 5.5MHz | 33.4MHz |
| 4.5MHz | 34.4MHz |
| 色彩副载波频率 | |
| PAL | 34.47MHz |
| SECAM | 34.494/34.65MHz |
| NTSC | 35.32MHz |
| 音响额定输出功率 | 10W(RMS(有效值))×2 |
| 扬声器 | |
| 尺寸 | 8×12cm椭圆形(2只) |
| 天线输入阻抗 | 75Ω非平衡式 |
| 接收频道 | |
| PAL-B/G,SECAM-B/G | |
| VHF | E2至E12 |
| UHF | E21至E69 |
| CATV | X至Z+2,S1至S41 |
| PAL-D/K,SECAM-D/K | |
| VHF | R1至R12,C1至C12 |
| UHF | 21至69,C21至C57 |
| PAL-I,SECAM-I | |
| VHF | (爱尔兰): B至J |
| UHF | (英国,香港): 21至69 |
| NTSC-M | |
| VHF | (美国): 2至13 |
| | (日本): 1至12 |
| UHF | (美国): 14至69 |
| | (日本): 13至62 |
| CATV | (美国): A-6至A-1 |
| | A至W+29 |
| | (日本): C13至C63 |
| 接收频道 | |
| VHE | 44.25MHz至423.25MHz |
| UHE | 431.25MHz至863.25MHz |
| 型号14B-S8 | 宽： 800mm |
| | 高： 583mm |
| | 深： 512mm |
| | 重量（大约）： 47.5kg |

上述规格变更之场合，恕不另行通知。



# 保养维修重要注意事项

本电视机的保养只得由专门技术人员进行。

## 关于高压系统和显象管的保养维修

对高压系统进行保养维修时，先于显象管管座金属部分与第二阳极引线间用绝缘线（诸如测试探针等）串接一只10KΩ的电阻器，以除去残留于高压系统中的静电。（之前，应从电源插座中拔出本机的电源引线插头。）

1. 本电视机显象管为整体内爆防护设计。
2. 为保证本电视机持久使用的安全，显象管的更换必须使用同型号者。
3. 搬移显象管时，不得倾持其颈部上提。
4. 拆装搬移显象管，必须先用布物等包护荧屏防碎玻璃，并且作完全放电处理后才能进行。

## 关于X射线

本电视机为无辐射设计。因此，任何X射线均设计控制于最小绝对极限。然而，在发生故障或保养维修时，过长时间地暴露机芯内部加以放置之场合，便有可能在其近旁产生有害的X射线辐射影响，为此，务请遵循下述预防措施：

1. 维修调整本电视机内部电路时，切勿让其高压超过33.0kV (电子束电流为0.1μA时)。
2. 为保证本电视机的正常工作，务必保证其高压为29.0kV ± 1.5kV(电子束电流为1600μA时)的工作条件。该工作条件值在本电视机出厂前已经调试验收。∴本电视机一旦经维修调整，可能导致上述工作高压规定值发生偏动。因此，维修调整完毕，务请重新对其高压值进行确认检查。
3. 更换显象管时，不得使用非经认可的、不同厂家、不同型号的显象管，以免产生超过规定标准的X射线辐射的危险。

## 维修后归还之前

在把维修后的电视机归还给用户之前，务请进行下列的安全检查。

1. 检查电视机中的所有导线的绝缘包皮有无扭折破损之处，于机芯底板和其它金属部件之间有无他物夹杂。
2. 检查电视机中的所有非金属质的控制旋钮，绝缘鱼鳞纸，机壳后盖、调节器和仪器隔室盖罩或屏蔽，电阻—电容隔离网以及机械部件隔离器等保护绝缘装置、器材。

# 调整时的注意事项

本型号电视机由I2C总线控制与一般的模拟调节综合进行．I2C总线控制包括初始设定(预设)以及下述的变量数据项目的调整设定．

## 1. 通过微处理机设定保养调整状

1 短接JA373和JA374，进入保养调整状态位置．
(I2C总线控制调整状态)．
(按相同要领使用JWS键进行设定)．
2 触按遥控器上的CH DOWN/UP(频道下移/上移)键以顺序选择各种保养调整状态．
3 触按遥控器上的CH DOWN/UP(频道下移/上移)键以相反顺序选择各种保养调整状态．
4 触按遥控器上的VOLUME UP/DOWN(音量增加/减少)键，可以变换调整数据．
5 断开JA373和JA374之间的短路状态,就可以解除保养调整状态．

## 2. 初始值的设定

1 短接JA373和JA374，接着打开主电源开关，即自动地进行初始值的设定．仅限于EEPROM为新品时(根据最前头的4位字节而判断)．
2 有关初始值的设定数据参见与其相应的一览表．
3 检查是否需要改变设定的数据(初始值设定数据) ．

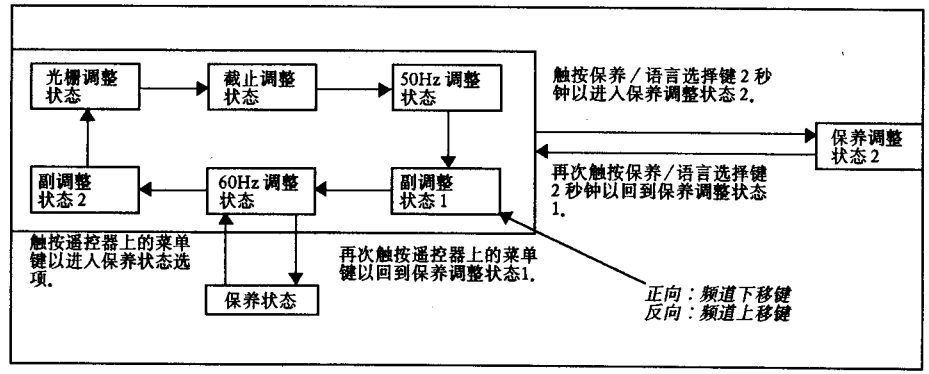
**注意：在组装电视机底盘而作好打开电源的准备时，必须先短接JA373和JA374，转换于保养调整状态位置，然后再打开主电源开关(见2-(1)之项)．**

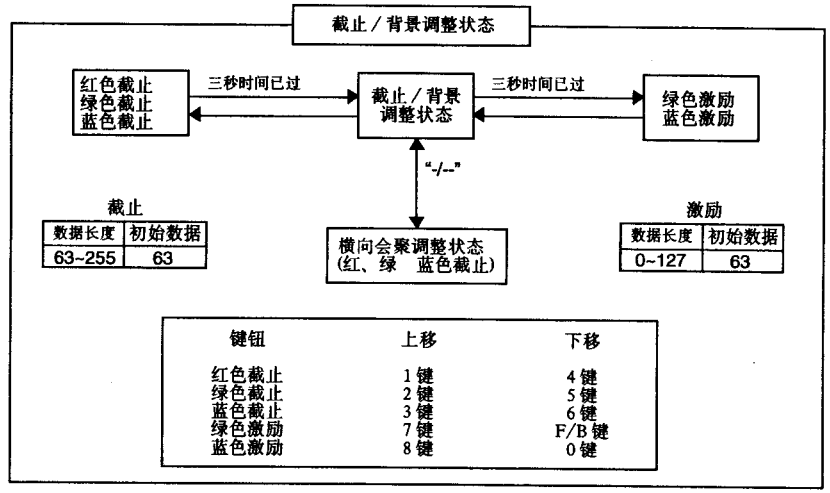
**注意事项:如果不进行上述操作，可能会发生过大的电子束电流，故请加以注意．**

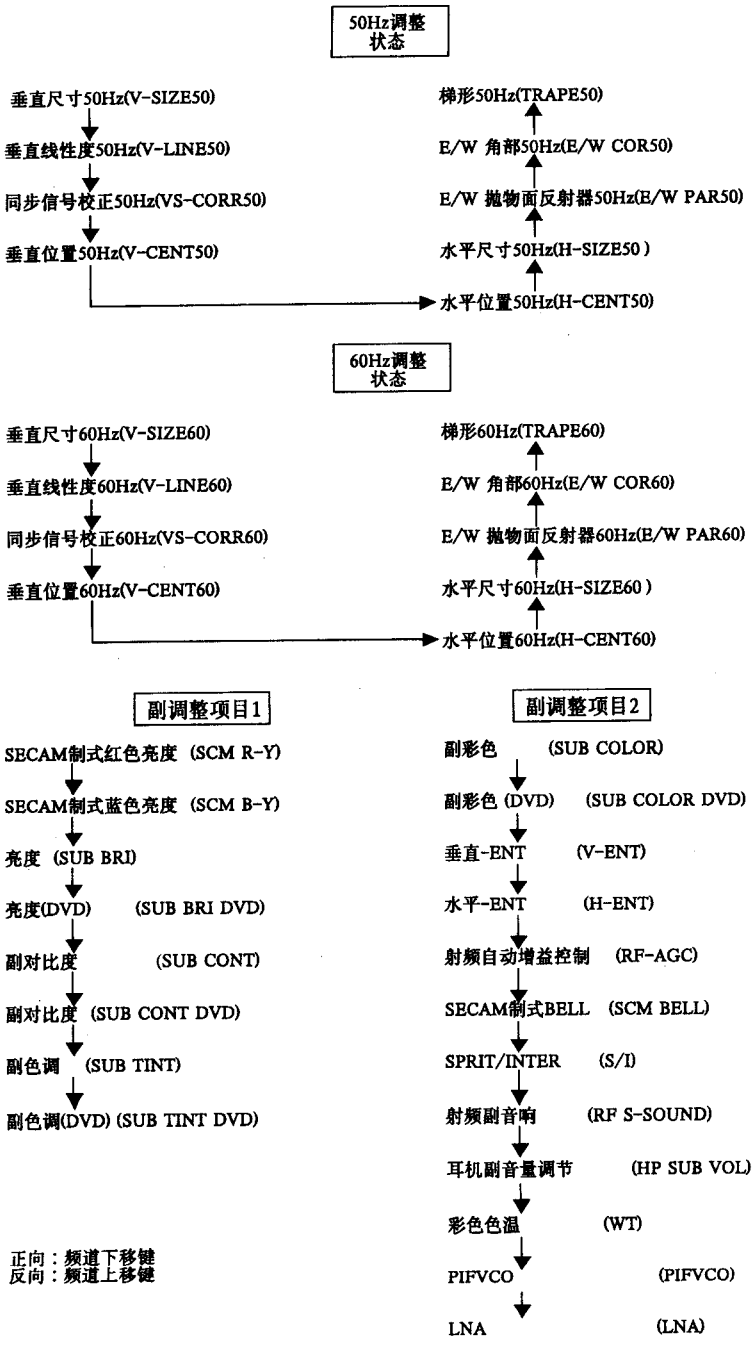


# 保养调整状态

1.) 在保养调整状态下，按下列要求触按相应键钮以选择调整状态．








# 保养调整状态选项中的用户数据

- 选择保养调整状态1之场合，可编程储存器数据（EEPROM DATA）将切换至保养调整数据（Service Data）。
  接着，按一次遥控器上的菜单（MENU）按钮，可编程储存器（EEPROM）将切换至保养调整状态选项（SERVICE MODE OPTION）。
  然后，再按一次遥控器上的菜单（MENU）按钮，可编程储存器（EEPROM）将返回至保养调整状态1（SERVICE MODE 1）。
- 在保养调整选项中，用户数据的建立如下所

保养调整状态选项

| 序号 | EEPROM项目 | 数据长度 | 在屏表示 | 集成片 | 数据设定值 | 初始数据 |
|---|---|---|---|---|---|---|
| 1 | 梳形选项 | ON/OFF | COMB OP | 选项 | | OFF |
| 2 | DVD选项 | ON/OFF | DVD OP | 选项 | | OFF |
| 3 | PAL制式选项 | ON/OFF | PAL OP | 选项 | | ON |
| 4 | 6.5M 中音频固定 | 0-1 | 6.5 M | 一片 | 6.5 M SIF FIX | (0) 0 |
| 5 | 旋转选项 | ON/OFF | ROTA OP | 选项 | | OFF |
| 6 | SYAKIT选项 | ON/OFF | SYAKIT OP | 选项 | | OFF |
| 7 | 空间化选择 | ON/OFF | SPA OP | 选项 | | OFF |
| 8 | 平坦选项 | ON/OFF | FLAT OP | 选项 | (ON:FL) | OFF |
| 9 | 扬声器 | 1-4 ⚠ | SPEAKER | 选项 | SPI (1) | 1 |
| 10 | 宾馆 ON/OFF | ON/OFF | H MODE | 选项 | | OFF |
| 11 | 宾馆位置 | 0~99 | H POSITION | 选项 | | 0 |
| 12 | 宾馆音量 | 0~60 | H VOLUME | 选项 | | 0 |

| | 数据 | | | | | | |
|---|---|---|---|---|---|---|---|
| | SX68KF7 | CX68KF5 | 29B-FG5 | 29B-FG8 | 29B-FX5 | 29B-FX8 | 29B-FX1 |
| COMB | ON | — — — | — — — | — — — | — — — | — — — | — — ▶ |
| DVD | ON | — — — | — — — | — — — | — — — | — — — | — — ▶ |
| PAL | ON | ON | OFF | OFF | OFF | OFF | OFF |
| 6.5 M | 0 | 0 | 0 | 0 | 0 | 0 | 1 ⚠ |
| ROTA | OFF | — — — | — — — | — — — | — — — | — — — | — — ▶ |
| SYAKIT | OFF | — — — | — — — | — — — | — — — | — — — | — — ▶ |
| SPA | OFF | — — — | — — — | — — — | — — — | — — — | — — ▶ |
| FLAT | ON | — — — | — — — | — — — | — — — | — — — | — — ▶ |
| SPEAKER | 3 | 3 | 3 | 3 | 4 | 4 | 4 |
| H MODE | OFF | — — — | — — — | — — — | — — — | — — — | — — ▶ |
| H POS | O | — — — | — — — | — — — | — — — | — — — | — — ▶ |
| H VOL | O | — — — | — — — | — — — | — — — | — — — | — — ▶ |

短接JA373和JA374后， 打开主电源开关， 以便读出EEPROM地址代码00H至03H的数据．如果该数据不符合下列规定要求， 即按下表所示要求进行EEPROM的初始值设定．

| 地址代码 | 数据 |
|---|---|
| 00H | 23H |
| 01H | 23H |
| 02H | 18H |
| 03H | A3H |

保养调整状态1

| 序号 | EEPROM设定 | 数据长度 | 在屏表示 | 集成片 | 数据设定值 | 初期数据 |
|---|---|---|---|---|---|---|
| 0 | 微处理机信息显示器 | | SERVICE MODE | | | |
| 1 | 截止 | 见# | CUTOFF BKGD | | | |
| 2 | 截止(DVD) | 见# | CUTOFFBKGD (DVD) | | | |
| 3 | 垂直尺寸 | 0~63 | V-SIZE 50 | 一片 | V-SIZE | 30 |
| 4 | 垂直线性度(50Hz)#2 | 0~15 | V S-LINE 50 | 一片 | V-LINEARITY | 10 |
| 5 | 同步信号校正(50Hz)#2 | 0~15 | V S-CORR 50 | 一片 | V S-CORRECTION | 8 |
| 6 | 垂直位置#2 | 0~7 | V-CENT 50 | 一片 | V-PHASE | 5 |
| 7 | 水平位置#2 | 0~31 | H-CENT 50 | 一片 | H-PHASE | 44 |
| 8 | 水平尺寸(50Hz)#2 | 0~63 | H-SIZE 50 | 一片 | H-SIZE | 32 |
| 9 | E/W抛物面反射器(50Hz)#2 | 0~63 | E/W PAR 50 | 一片 | E/W PARABORA | 39 |
| 10 | E/W角部(50Hz)#2 | 0~15 | E/W COR 50 | 一片 | E/W CORNER | 6 |
| 11 | 梯形(50Hz)#2 | 0~31 | TRAPE 50 | 一片 | TRAPEZIUM | 17 |
| 12 | SECAM制式红色亮度#3 | 0~15 | SCM R-Y | 一片 | SR-Y | 8 |
| 13 | SECAM制式蓝色亮度#3 | 0~15 | SCM B-Y | 一片 | SB-Y | 8 |
| 14 | 亮度 | 0~127 | SUB BRI | 一片 | BRIGHTNESS | 80 |
| 15 | 亮度(DVD) | 0~127 | SUB BRI DVD | 一片 | BRIGHTNESS | 80 |
| 16 | 副对比度 | 0~15 | SUB CONT | 一片 | SUB CONT | 3 |
| 17 | 副对比度(DVD) | 0~15 | SUB CONT DVD | 一片 | SUB XONT | 3 |
| 18 | 色调 | 0~127 | SUB TINT | 一片 | TINT | 64 |
| 19 | 色调(DVD) | 0~127 | SUB TINT DVD | 一片 | TINT | 16 |
| 20 | 垂直尺寸 | 0~63 | V-SIZE 60 | 一片 | V-SIZE | 39 |
| 21 | 垂直线性度 | 0~15 | V-LINE 60 | 一片 | V-LINEARITY | 10 |
| 22 | 同步信号校正(60Hz) | 0~15 | V S-CORR 60 | 一片 | V S-CORRECTION | 9 |
| 23 | 垂直位置(60Hz) | 0~7 | V-CENT 60 | 一片 | V-PHASE | 2 |
| 24 | 水平位置(60Hz) | 0~31 | H-CENT 60 | 一片 | H-PHASE | 14 |
| 25 | 水平尺寸(60Hz) | 0~63 | H-SIZE 60 | 一片 | H-SIZE | 34 |
| 26 | E/W抛物面反射器(60Hz) | 0~63 | E/W PAR 60 | 一片 | E/W PARABORA | 19 |
| 27 | E/W角部(60Hz) | 0~15 | E/W COT 60 | 一片 | E/W CORNER | 4 |
| 28 | 梯形(60Hz) | 0~31 | TRAPE 60 | 一片 | TRAPEZIUM | 6 |
| 29 | 彩色 | 0~127 | SUB COL | 一片 | COLOUR | 60 |
| 30 | 彩色(DVD) | 0~127 | CUB COL DVD | 一片 | COLOUR | 60 |
| 31 | 垂直-ENT | 0~7 | V-ENT | 一片 | V-ENT | 6 |
| 32 | 水平-ENT | 0~7 | H-ENT | 一片 | H-ENT | 4 |
| 33 | 射频自动增益控制 | 0~63 | RF AGC | 一片 | RF AGC | 46 |
| 34 | SECAM制式BELL | 0~1 | SCM BELL | 一片 | S BELL | 0 |
| 35 | SPRIT/INTER | 0~1 | S/I | 一片 | SPRIT/INTER | 0 |
| 36 | 射频副音响 | 0~127 | RF S-SOUND | 一片 | RF SUB SOUND | 96 |
| 37 | 副音量 | 0~63 | SUB VOL | SOR/SPA | VOLUME | 45 |
| 38 | 耳机副音量调节 | 0~63 | HP SUB VOL | SOR/SPA | VOLUME | 63 |
| 39 | 彩色色温 | 0~1 | WT | 选购品 | Russia: 0, Other: 1 | 1 |
| 40 | PIF VCO | #4 | PIFVCO | | | – |
| 41 | LNA | ON/OFF | LNA | 选购品 | | OFF |

#1.选择保养调整状态1（SERVICE MODE 1）之场合， 微型计算机(MICON)的版本信息软件(SOFTWARE))版本信息以及检查信息等将自动显示.

#2.60Hz调整值由"±50Hz"的调整值进行编制．（有关"±50Hz"将在后章说明）

#3.调整ＳＥＣＡＭ制式红色亮度与蓝色亮度时， 一片(1 CHIP)的Ｓ-黑色设定为1.

#4.选择PIFVCO方式时， 射频自动增益控制设定为"0 0"， PIFVCO设定为1.

保养调整状态2

| 序号 | EEPROM设定 | 数据长度 | 在屏表示 | 集成片 | 数据设定值 | 初期数据 |
|---|---|---|---|---|---|---|
| 1 | WPS | 0~1 | WPS | 一片 | WPS | 1 |
| 2 | 副对比度 | 0~127 | S CONT | 一片 | CONTRAST | 127 |
| 3 | NTSC相位(NT) | 0~3 | N PNT | 一片 | NTSC PHASE | 0 |
| 4 | NTSC相位(PAL/SECAM) | 0~3 | N P PS | 一片 | NTSC PHASE | 0 |
| 5 | NTSC相位(DVD) | 0~3 | N PD | 一片 | NTSC PHASE | 3 |
| 6 | 副鲜明度(TV) | 0~63 | S SHARP T | 一片 | SHARPNESS | 32 ② |
| 7 | 副鲜明度(AV) | 0~63 | S SHARP A | 一片 | SHARPNESS | 20 ① |
| 8 | 副鲜明度(DVD) | 0~63 | S SHARP D | 一片 | SHARPNESS | 10 |
| 9 | 红绿蓝三色静噪控制 | 0~1 | RGB MUTE | 一片 | RGB MUTE | OFF |
| 10 | 红绿蓝三色对比度 | 0~63 | RGB CONT | 一片 | RGB CONTRAST | 32 ①② |
| 11 | 亮度延迟时间(NTSC-M) | 0~3 | YNM | 一片 | Y-DL | 1 |
| 12 | 亮度延迟时间(PAL-B/G) | 0~3 | YPB | 一片 | Y-DL | 1 |
| 13 | 亮度延迟时间(PAL-I) | 0~3 | YPI | 一片 | Y-DL | 3 |
| 14 | 亮度延迟时间(PAL-D/K) | 0~3 | YPD | 一片 | Y-DL | 3 |
| 15 | 亮度延迟时间(SECAM-B/G) | 0~3 | YSB | 一片 | Y-DL | 0 |
| 16 | 亮度延迟时间(SECAM-D/K) | 0~3 | YSD | 一片 | Y-DL | 3 |
| 17 | 亮度延迟时间(B/W) | 0~3 | YBW | 一片 | Y-DL | 0 |
| 18 | 亮度延迟时间(NTSC-AV) | 0~3 | YNA | 一片 | Y-DL | 0 |
| 19 | 亮度延迟时间(PAL-AV) | 0~3 | YPA | 一片 | Y-DL | 0 |
| 20 | 亮度延迟时间(SECAM-AV) | 0~3 | YSA | 一片 | Y-DL | 0 |
| 21 | 亮度延迟时间(B/W-AV) | 0~3 | YBA | 一片 | Y-DL | 0 |
| 22 | 副彩色 | 0~31 | SUB COL | 一片 | SUB-COLOR | 16 |
| 23 | VSM增益AVM1 | 0~7 | V-GAIN 1 | 一片 | VSM GAIN | 3 |
| 24 | VSM增益AVM2 | 0~7 | V-GAIN 2 | 一片 | VSM GAIN | 5 |
| 25 | VSM增益AVM3 | 0~7 | V-GAIN 3 | 一片 | VSM GAIN | 7 |
| 26 | 基带色调 | 0~31 | B-B TINT | 一片 | BASE BAND TINT | 16 |
| 27 | SECAM制式GP-相位 | 0~3 | S G-PHASE | 一片 | S SP-PHASE | 1 |
| 28 | SECAM制式识别灵敏度 | 0~1 | S ID-SENS | 一片 | S ID-SENS | |
| 29 | SECAM制式识别模式 | 0~1 | S ID-MODE | 一片 | S ID-MODE | 0 |
| 30 | PIF频率 | 0~7 | P FREQ | 一片 | PIF FREQ | 3 |
| 31 | P/N-识别 | 0~1 | PN ID | 一片 | P/N-ID | 0 |
| 32 | YS/YM模式 | 0~1 | YSM MODE | 一片 | YSM MODE | 1 |
| 33 | 红绿蓝三色ABCL | 0~1 | RGB ABCL | 一片 | RGB ABCL | 1 |
| 34 | DC恢复 | 0~3 | DC REST | 一片 | DC RESTORATION | 3 |
| 35 | 黑色展宽 | 0~3 | B ST | 一片 | BLACK STRETCH | 1 |
| 36 | ABL开始点 | 0~3 | ABL ST | 一片 | ABL START POINT | 3 |
| 37 | ABL增益 | 0~3 | ABL GA | 一片 | ABL GAIN | 2 |
| 38 | AKB模式 | 0~63 | AKB MODE | 一片 | AKB MODE | 0 |
| 39 | 彩色 | 0~1 | COL G | 一片 | COLOR | 1 |
| 40 | V 自动增益控制 | 0~1 | V AGC | 一片 | V AGC | 0 |
| 41 | V 倾斜基准 | 0~1 | V RAMP | 一片 | V RAMP | 1 |
| 42 | VSM相位 | 0~1 | VSM PHASE | 一片 | VSM PHASE | 0 |
| 43 | 低音频信号ON | 0~3 | BA LV | SUR/SPA | BASS LEVEL | *1 ①② |
| 44 | 低音频信号OFF AVM1 SP1 | 0~4 #1 | BA OFF 1 SP1 | SUR/SPA | BASS SW, LEVEL | 4 |
| 45 | 低音频信号OFF AVM2 SP1 | 0~4 #1 | BA OFF 2 SP1 | SUR/SPA | BASS SW, LEVEL | 4 |
| 46 | 低音频信号OFF AVM3 SP1 | 0~4 #1 | BA OFF 3 SP1 | SUR/SPA | BASS SW, LEVEL | 4 |
| 47 | 低音频信号OFF AVM1 SP2 | 0~4 #1 | BA OFF 1 SP2 | SUR/SPA | BASS SW, LEVEL | 4 |
| 48 | 低音频信号OFF AVM2 SP2 | 0~4 #1 | BA OFF 2 SP2 | SUR/SPA | BASS SW, LEVEL | 4 |
| 49 | 低音频信号OFF AVM3 SP2 | 0~4 #1 | BA OFF 3 SP2 | SUR/SPA | BASS SW, LEVEL | 4 |
| 50 | 低音频信号OFF AVM1 SP3 | 0~4 #1 | BA OFF 1 SP3 | SUR/SPA | BASS SW, LEVEL | 4 |
| 51 | 低音频信号OFF AVM2 SP3 | 0~4 #1 | BA OFF 2 SP3 | SUR/SPA | BASS SW, LEVEL | 4 |
| 52 | 低音频信号OFF AVM3 SP3 | 0~4 #1 | BA OFF 3 SP3 | SUR/SPA | BASS SW, LEVEL | 4 |
| 53 | 低音频信号OFF AVM1 SP4 | 0~4 #1 | BA OFF 1 SP4 | SUR/SPA | BASS SW, LEVEL | 4 |
| 54 | 低音频信号OFF AVM2 SP4 | 0~4 #1 | BA OFF 2 SP4 | SUR/SPA | BASS SW, LEVEL | 4 |

*1

| NO. | ITEM | INITIAL DATA | |
|---|---|---|---|
| | | KF7, KF5, FG8, FX8, FX1 | FG5, FX5 |
| 43 | BASS LEVEL | 3 | 0 ② |

| 序号 | EEPROM设定 | 数据长度 | 在屏表示 | 集成片 | 数据设定值 | 初期数据 | |
|---|---|---|---|---|---|---|---|
| 55 | 低音频信号OFF AVM3 SP4 | 0~4 #1 | BA OFF 3 SP4 | SUR/SPA | BASS SW, LEVEL | 4 | |
| 56 | 自动增益控制开关 | 0~1 | AGC SW | SUR/SPA | AGC SW | ON | |
| 57 | 自动增益控制调整 | 0~3 | AGC AD | SUR/SPA | AGC ADJ | 2 | ⚠2 |
| 58 | 调频信号电平 | #2 | FM L | NICAM | FM LEVEL | +1 | |
| 59 | IGR信号电平 | #2 | IGR L | NICAM | IGR LEVEL | +2 | |
| 60 | NICAM B/G制式信号电平 | #3 | BG L | NICAM | NICAM B/G LEVEL | -1 | |
| 61 | NICAM制式I信号电平 | #3 | I L | NICAM | NICAM I LEVEL | +4 | |
| 62 | NICAM D/K制式信号电平 | #3 | DK L | NICAM | NICAM D/K LEVEL | -1 | |
| 63 | 下部错误 | 0~255 | L ERR | NICAM | LOWER ERROR | 35 | |
| 64 | 上部错误 | 0~255 | U ERR | NICAM | UPPER ERROR | 70 | |
| 65 | IGR增益(9878H) | #4 | IGR G | NICAM | IGR GAIN (9873H) | 0 | |
| 66 | NICAM制式速度 | 0~3 | N SPE | NICAM | N SPEED | 2 | |
| 67 | 内部/外部信号 | 0~1 | IN/EX | NICAM | INTER/EXTER | 0 | |
| 68 | 自动噪声抑制 | 0~1 | AM | NICAM | AUTO MUTE | OFF | ⚠1 |
| 69 | 自动增益控制开关ON/OFF | 0~1 | AGC SW | NICAM | AGC SW | OFF | |
| 70 | 自动增益控制增益 | 0~31 | AGC G | NICAM | AGC GAIN | 16 | |
| 71 | SYAKIT音量1 | 0~21 | SVOL 1 | SYAKIT | SVOLUME 1 | 0 | |
| 72 | SYAKIT音量2 | 0~3 | SVOL 2 | SYAKIT | SVOLUME 2 | 0 | |
| 73 | SYAKIT低电平 | 0~1 | SLOT | SYAKIT | SLOU | 1 | |
| 74 | SYAKIT ATT | 0~7 | SATT | SYAKIT | SATT OUT | 0 | |
| 75 | SYAKIT低音频 | 0~13 | SBASS | SYAKIT | S-BASS | 6 | |
| 76 | SYAKIT高音频 | 0~13 | STRE | SYAKIT | S-TREBLE | 6 | |
| 77 | 最大电平SYAKIT1 | 0~5 | S1MA | | | 3 | |
| 78 | 最大电平SYAKIT2 | 0~5 | S2MA | | | 4 | |
| 79 | 最大电平SYAKIT3 | 0~5 | S3MA | | | 6 | |
| 80 | 启动信号电平SYAKIT1 | 0~63 | S1ST | | | 17 | |
| 81 | 启动信号电平SYAKIT2 | 0~63 | S2ST | | | 21 | |
| 82 | 启动信号电平SYAKIT3 | 0~63 | S3ST | | | 20 | |
| 83 | 宽带信号电平SYAKIT1 | 0~7 | S1W1 | | | 6 | |
| 84 | 宽带信号电平SYAKIT2 | 0~7 | S2W1 | | | 3 | |
| 85 | 宽带信号电平SYAKIT3 | 0~7 | S3W1 | | | 3 | |
| 86 | 停止信号电平SKYKIT1 | 0~5 | S1SP | | | 1 | |
| 87 | 停止信号电平SKYKIT2 | 0~5 | S2SP | | | 1 | |
| 88 | 停止信号电平SKYKIT3 | 0~5 | S3SP | | | 1 | |
| 89 | 低音频信号最大SYAKIT1 | 0~15 | SBASS1 | | | 12 | |
| 90 | 低音频信号最大SYAKIT2 | 0~15 | SBASS2 | | | 11 | |
| 91 | 低音频信号最大SYAKIT3 | 0~15 | SBASS3 | | | 10 | |
| 92 | 高音频信号最大SYAKIT1 | 0~15 | STRE1 | | | 12 | |
| 93 | 高音频信号最大SYAKIT2 | 0~15 | STRE2 | | | 11 | |
| 94 | 高音频信号最大SYAKIT3 | 0~15 | STRE3 | | | 10 | |
| 95 | 低音频AVM1 SP1 | #6 | BASS 1 SP1 | | | -5 | |
| 96 | 低音频AVM2 SP1 | #6 | BASS 2 SP1 | | | +2 | |
| 97 | 低音频AVM3 SP1 | #6 | BASS 3 SP1 | | | +5 | |
| 98 | 低音频AVM1 SP2 | #6 | BASS 1 SP2 | | | -5 | |
| 99 | 低音频AVM2 SP2 | #6 | BASS 2 SP2 | | | 0 | |
| 100 | 低音频AVM3 SP2 | #6 | BASS 3 SP2 | | | +5 | |
| 101 | 低音频AVM1 SP3 | #6 | BASS 1 SP3 | | | -5 | |
| 102 | 低音频AVM2 SP3 | #6 | BASS 2 SP3 | | | 0 | |
| 103 | 低音频AVM3 SP3 | #6 | BASS 3 SP3 | | | *2 | ⚠2 |
| 104 | 低音频AVM1 SP4 | #6 | BASS 1 SP4 | | | -5 | |
| 105 | 低音频AVM2 SP4 | #6 | BASS 2 SP4 | | | -2 | |
| 106 | 低音频AVM3 SP4 | #6 | BASS 3 SP4 | | | *2 | ⚠2 |
| 107 | 高音频AVM1 SP1 | #6 | TRE 1 SP1 | | | -5 | |
| 108 | 高音频AVM2 SP1 | #6 | TRE 2 SP1 | | | 0 | |
| 109 | 高音频AVM3 SP1 | #6 | TRE 3 SP1 | | | +5 | |

*2

| NO. | ITEM | INITIAL DATA | |
|---|---|---|---|
| | | KF7, KF5, FG8, FX8, FX1 | FG5, FX5 |
| 103 | BASS AVM3 SP3 | +10 | +26 ⚠2 |
| 106 | BASS AVM3 SP4 | +10 | +26 ⚠2 |

## 保养调整状态2

| 序号 | EEPROM设定 | 数据长度 | 在屏表示 | 集成片 | 数据设定值 | 初期数据 | |
|---|---|---|---|---|---|---|---|
| 110 | 高音频AVM1 SP2 | #6 | TRE 1 SP2 | | | -5 | |
| 111 | 高音频AVM2 SP2 | #6 | TRE 2 SP2 | | | +2 | |
| 112 | 高音频AVM3 SP2 | #6 | TRE 3 SP2 | | | +8 | |
| 113 | 高音频AVM1 SP3 | #6 | TRE 1 SP3 | | | -10 | |
| 114 | 高音频AVM2 SP3 | #6 | TRE 2 SP3 | | | +1 | ⚠1 ⚠2 |
| 115 | 高音频AVM3 SP3 | #6 | TRE 3 SP3 | | | *3 | ⚠2 |
| 116 | 高音频AVM1 SP4 | #6 | TRE 1 SP4 | | | -10 | |
| 117 | 高音频AVM2 SP4 | #6 | TRE 2 SP4 | | | +3 | ⚠2 |
| 118 | 高音频AVM3 SP4 | #6 | TRE 3 SP4 | | | *3 | ⚠2 |
| 119 | 低音频模式AVM1 SP1 | ON/OFF #7 | BA MO 1 SP1 | | | OFF | |
| 120 | 低音频模式AVM2 SP1 | ON/OFF #7 | BA MO 2 SP1 | | | OFF | |
| 121 | 低音频模式AVM3 SP1 | ON/OFF #7 | BA MO 3 SP1 | | | ON | |
| 122 | 低音频模式AVM1 SP2 | ON/OFF #7 | BA MO 1 SP2 | | | OFF | |
| 123 | 低音频模式AVM2 SP2 | ON/OFF #7 | BA MO 2 SP2 | | | OFF | |
| 124 | 低音频模式AVM3 SP2 | ON/OFF #7 | BA MO 3 SP2 | | | ON | |
| 125 | 低音频模式AVM1 SP3 | ON/OFF #7 | BA MO 1 SP3 | | | OFF | |
| 126 | 低音频模式AVM2 SP3 | ON/OFF #7 | BA MO 2 SP3 | | | OFF | |
| 127 | 低音频模式AVM3 SP3 | ON/OFF #7 | BA MO 3 SP3 | | | ON | |
| 128 | 低音频模式AVM1 SP4 | ON/OFF #7 | BA MO 1 SP4 | | | OFF | |
| 129 | 低音频模式AVM2 SP4 | ON/OFF #7 | BA MO 2 SP4 | | | OFF | |
| 130 | 低音频模式AVM3 SP4 | ON/OFF #7 | BA MO 3 SP4 | | | ON | |
| 131 | 对比度AVM1 | #8 | CONT 1 | | | 55 | |
| 132 | 对比度AVM2 | #8 | CONT 2 | | | 57 | |
| 133 | 对比度AVM3 | #8 | CONT 3 | | | 60 | |
| 134 | 对比度AVM1 FL | #8 | CONT 1 FL | | | 55 | |
| 135 | 对比度AVM2 FL | #8 | CONT 2 FL | | | 57 | |
| 136 | 对比度AVM3 FL | #8 | CONT 3 FL | | | 60 | |
| 137 | 彩色AVM1 | #9 | COL 1 | | | 0 | |
| 138 | 彩色AVM2 | #9 | COL 2 | | | 0 | |
| 139 | 彩色AVM3 | #9 | COL 3 | | | 10 | |
| 140 | 彩色AVM1 FL | #9 | COL 1 FL | | | 0 | |
| 141 | 彩色AVM2 FL | #9 | COL 2 FL | | | 0 | |
| 142 | 彩色AVM3 FL | #9 | COL 3 FL | | | 10 | |
| 143 | 鲜明度AVM1 | #10 | SHARP 1 | | | -5 | |
| 144 | 鲜明度AVM2 | #10 | SHARP 2 | | | 0 | |
| 145 | 鲜明度AVM3 | #10 | SHARP 3 | | | 0 | |
| 146 | 鲜明度AVM1 FL | #10 | SHARP 1 FL | | | -5 | |
| 147 | 鲜明度AVM2 FL | #10 | SHARP 2 FL | | | 0 | |
| 148 | 鲜明度AVM3 FL | #10 | SHARP 3 FL | | | 0 | |
| 149 | γ膨恢 VM1 | #11 | G-POINT 1 | | | 3 | |
| 150 | γ膨恢 VM2 | #11 | G-POINT 2 | | | 2 | |
| 151 | γ膨恢 VM3 | #11 | G-POINT 3 | | | 1 | |
| 152 | γ膨恢 VM1 FL | #11 | G-POINT 1 FL | | | 3 | |
| 153 | γ膨恢 VM2 FL | #11 | G-POINT 2 FL | | | 2 | |
| 154 | γ膨恢□VM3 FL | #11 | G-POINT 3 FL | | | 1 | |
| 155 | 搜索速度 | #12 | S SPE | | | 450 | |
| 156 | 在屏表示 | 0~127 | OSD-H | | | 2 | |
| 157 | 蜂鸣器 | 0~1 | BUZZ | 一片 | BUZZ | 0 | |
| 158 | 声像自动微调 | 0~1 | AV AFC | | | 1 | |
| 159 | 文本水平信号 | 0~63 | TEXT H | 文本 | | 34 | ⚠2 |
| 160 | 文本垂直信号 | 0~63 | TEXT V | 文本 | | 35 | ⚠1 |
| 161 | NVM | | NVM | EEPROM | | | |

*3

| NO. | | INITIAL DATA | |
|---|---|---|---|
| | | | FG5, FX5 |
| 115 | TREBLE AVM3 SP3 | +5 | +14 ⚠2 |
| 118 | TREBLE AVM3 SP4 | +5 | +14 ⚠2 |

# 选台数据的初始设定

(1) Execute MCL 1/2 key to set the following data in EEPROM.

| | SREC/SRAC/SYI/STTM | | | | | SREC-SCA (SKD) | | | |
|---|---|---|---|---|---|---|---|---|---|
| 遥控器代码 | MCL 1 (R/C CODE 117h) | | | | | MCL 2 (R/C CODE 169h) | | | |
| 电视频道 | CH-No. | Fv (MHz) | S-SYSTEM | | | CH-No. | Fv (MHz) | S-SYSTEM | |
| 0 | 跳跃OFF解除 | | | | | | 590.25 | 5.5 | B/G |
| 1 | E-2 | 48.25 | 5.5 | B/G | | AU-0 | 46.25 | 5.5 | B/G |
| 2 | E-4/B-3 | 62.25 | 5.5 | B/G | | AU-2 | 64.25 | 5.5 | B/G |
| 3 | OIR-3 | 77.25 | 6.5 | D/K | | AU-3 | 86.25 | 5.5 | B/G |
| 4 | E-5 | 175.25 | 5.5 | B/G | | AU-4 | 95.25 | 5.5 | B/G |
| 5 | E-6/B-5 | 182.25 | 5.5 | B/G | | AU-5A | 138.25 | 5.5 | B/G |
| 6 | OIR-7 | 183.25 | 6.5 | D/K | | AU-6 | 175.25 | 5.5 | B/G |
| 7 | OIR-8 | 191.25 | 6.5 | D/K | | AU-7 | 182.25 | 5.5 | B/G |
| 8 | E-8/B-7 | 196.25 | 5.5 | B/G | | AU-8 | 189.25 | 5.5 | B/G |
| 9 | J-9 | 199.25 | 4.5 | M | | AU-9 | 196.25 | 5.5 | B/G |
| 10 | E-10/B-9 | 210.25 | 5.5 | B/G | | AU-10 | 209.25 | 5.5 | B/G |
| 11 | E-12/B-11 | 224.25 | 5.5 | B/G | | AU-11 | 216.25 | 5.5 | B/G |
| 12 | E-21 | 471.25 | 5.5 | B/G | | 跳跃OFF解除 | | | |
| 13 | I-23 | 487.25 | 6.0 | I | | 跳跃OFF解除 | | | |
| 14 | E-25 | 503.25 | 5.5 | B/G | | 跳跃OFF解除 | | | |
| 15 | E-34 | 575.25 | 5.5 | B/G | | 跳跃OFF解除 | | | |
| 16 | E-35 | 583.25 | 5.5 | B/G | | 跳跃OFF解除 | | | |
| 17 | E-37 | 599.25 | 5.5 | B/G | | 跳跃OFF解除 | | | |
| 18 | J-38 | 621.25 | 4.5 | M | | 跳跃OFF解除 | | | |
| 19 | OIR-42 | 639.25 | 6.5 | D/K | | 跳跃OFF解除 | | | |
| 20 | B-50 | 703.25 | 5.5 | B/G | | 跳跃OFF解除 | | | |
| 21 | I-54 | 735.25 | 6.0 | I | | 跳跃OFF解除 | | | |
| 22 | E-58 | 767.25 | 5.5 | B/G | | 跳跃OFF解除 | | | |
| 23 | E-64 | 815.25 | 5.5 | B/G | | 跳跃OFF解除 | | | |
| 24 | I-69 | 855.25 | 6.0 | I | | 跳跃OFF解除 | | | |
| 25 | E-69 | 855.25 | 5.5 | B/G | | 跳跃OFF解除 | | | |
| 26 | US-2 | 55.25 | 4.5 | M | | 跳跃OFF解除 | | | |
| 27 | A-6 | 83.25 | 4.5 | M | | 跳跃OFF解除 | | | |
| 28 | JA-6 | 183.25 | 4.5 | M | | WE-28 | 527.25 | 5.5 | B/G |
| 29 | JA-8 | 193.25 | 4.5 | M | | 跳跃OFF解除 | | | |
| 30 | JA-12 | 217.25 | 4.5 | M | | 跳跃OFF解除 | | | |
| 31 | US-14 | 471.25 | 4.5 | M | | 跳跃OFF解除 | | | |
| 32 | JA-14 | 477.25 | 4.5 | M | | 跳跃OFF解除 | | | |
| 33 | JA-50 | 693.25 | 4.5 | M | | 跳跃OFF解除 | | | |
| 34 | US-83 | 885.25 | 4.5 | M | | 跳跃OFF解除 | | | |
| 35 | S-2 | 112.25 | 5.5 | B/G | | 跳跃OFF解除 | | | |
| 36 | S-10 | 168.25 | 5.5 | B/G | | 跳跃OFF解除 | | | |
| 37 | 跳跃OFF解除 | | | | | AU-37 | 590.25 | 5.5 | B/G |
| 38 | S-20 | 294.25 | 5.5 | B/G | | 跳跃OFF解除 | | | |
| 39 | S-41 | 463.25 | 5.5 | B/G | | 跳跃OFF解除 | | | |
| 40 | 跳跃OFF解除 | | | | | 跳跃OFF解除 | | | |
| 41 | B-43 | 647.25 | 5.5 | B/G | | E-2 | 48.25 | 5.5 | B/G |
| 42 | B-45 | 663.25 | 5.5 | B/G | | E-4 | 62.25 | 5.5 | B/G |
| 43 | B-47 | 679.25 | 5.5 | B/G | | OI-3 | 77.25 | | |
| 44 | E-5 | 174.95 | 5.5 | B/G | | E-5 | 175.25 | 5.5 | B/G |
| 45 | E-5 | 175.55 | 5.5 | B/G | | OIR-7 | 183.25 | | |
| 46 | 跳跃OFF解除 | | | | | OIR-8 | 191.25 | | |
| 47 | 跳跃OFF解除 | | | | | E-10 | 210.25 | 5.5 | B/G |
| 48 | 跳跃OFF解除 | | | | | E-12 | 224.25 | 5.5 | B/G |
| 49 | 跳跃OFF解除 | | | | | I-23 | 487.25 | | |
| 50 | 跳跃OFF解除 | | | | | E-25 | 503.25 | 5.5 | B/G |
| 51 | 跳跃OFF解除 | | | | | E-34 | 575.25 | 5.5 | B/G |
| 52 | 跳跃OFF解除 | | | | | E-37 | 599.25 | 5.5 | B/G |
| 53 | 跳跃OFF解除 | | | | | JPN-38 | 621.25 | 4.5 | M |

| | SREC/SRAC/SYI/STTM | | | | SREC-SCA (SKD) | | | |
|---|---|---|---|---|---|---|---|---|
| 遥控器代码 | MCL 1 (R/C CODE 117h) | | | | MCL 2 (R/C CODE 169h) | | | |
| 电视频道 | CH-No. | Fv (MHz) | S-SYSTEM | | CH-No. | Fv (MHz) | S-SYSTEM | |
| 54 | 跳跃OFF解除 | | | | OI-42 | 639.25 | | |
| 55 | 跳跃OFF解除 | | | | I-54 | 735.25 | 6.0 | |
| 56 | 跳跃OFF解除 | | | | E-58 | 767.25 | 5.5 | B/G |
| 57 | 跳跃OFF解除 | | | | E-64 | 815.25 | 5.5 | B/G |
| 58 | 跳跃OFF解除 | | | | I-69 | 855.25 | 6.0 | I |
| 59 | 跳跃OFF解除 | | | | JA-1 | 91.25 | 4.5 | M |
| 60 | 跳跃OFF解除 | | | | JA-6 | 183.25 | 4.5 | M |
| 61 | 跳跃OFF解除 | | | | JA-8 | 193.25 | 4.5 | M |
| 62 | 跳跃OFF解除 | | | | JA-12 | 217.25 | 4.5 | M |
| 63 | 跳跃OFF解除 | | | | US-14 | 471.25 | 4.5 | M |
| 64 | 跳跃OFF解除 | | | | JA-50 | 693.25 | 4.5 | M |
| 65 | 跳跃OFF解除 | | | | S-2 | 112.25 | 5.5 | B/G |
| 66 | 跳跃OFF解除 | | | | S-10 | 168.25 | 5.5 | B/G |
| 67 | 跳跃OFF解除 | | | | S-20 | 294.25 | 5.5 | B/G |
| 68 | 跳跃OFF解除 | | | | S-41 | 463.25 | 5.5 | B/G |
| 69 | 跳跃OFF解除 | | | | E-5 | 174.95 | 5.5 | B/G |
| 70 | 跳跃OFF解除 | | | | E-5 | 175.55 | 5.5 | B/G |
| ↓ | ↓ | | | | ↓ | | | |
| 99 | 跳跃OFF解除 | | | | 跳跃OFF解除 | | | |

# 出厂前设定及检查

(1) 下列数据是出厂前为EEPROM中设定的默认数据.

| 项目 | 数据设定 | | | |
|---|---|---|---|---|
| | 出厂前初始-设定1 | 出厂前初始-设定2 | 出厂前初始-设定3 | 出厂前初始-设定4 |
| 遥控器 | 28(H) | A8(H) | E8(H) | E9(H) |
| S-制式 | 所有频道D/K | 所有频道I | 所有频道B/G | 所有频道B/G |
| 语言选择 | 中文 | 中文 | 英语 | 阿拉伯语 |

| 项目 | 数据设定 | | | |
|---|---|---|---|---|
| | 出厂前初始-设定5 | 出厂前初始-设定6 | 出厂前初始-设定7 | 出厂前初始-设定8 |
| 遥控器 | EA(H) | EB(H) | EC(H) | ED(H) |
| S-制式 | 所有频道D/K | 所有频道B/G | 所有频道D/K | #(MCL) |
| 语言选择 | 俄语 | 马来语 | 法语 | 英语 |

#出厂前初始设定8 操作 MCL2.

| 项目 | 数据设定 |
|---|---|
| 最后电源状态 | 开 |
| 最后TV/AV制式 | 电视 |
| 最后频道 | 频道1 |
| 回闪 | 频道1 |
| 常看频道1 | 频道10 |
| 常看频道2 | 频道20 |
| 常看频道3 | 频道30 |
| 常看频道4 | 频道40 |
| 1位数/2位数 | 2位数 |
| 音量 | 0 |
| 耳机音量 | 0 |
| 旋转 | 0 |
| 储存 | 关 |
| AV方式 | 2 |
| 平衡 | 0 |
| 蓝色背景 | 关 |
| 自动选择 | 开 |

*1 ⚠

| 项目 | 数据设定 |
|---|---|
| VM | 开 |
| 本文 | 1 |
| LNA | 关 |
| 电源开启定时器 | 于动作状态 |
| 电源开启定时器频道 | 于动作状态 |
| 电源开启定时器音量 | 于动作状态 |
| 提示 | 于动作状态 |
| 自动微调 | 所有频道打开 |
| 彩色制式 | 所有频道自动搜寻 |
| 跳跃 | 所有频道关闭 |
| NICAM ON/OFF | 所有频道打开 |
| SECAM 立体声方式 | 所有频道立体声 |
| NICAM双语(丽声)方式 | 所有频道M1 |
| NICAM单声道方式 | 所有频道单声道 |
| IGR ON/OFF | 所有频道打开 |
| IGR立体声方式 | 所有频道立体声 |
| IGR双语(丽声)方式 | 所有频道主频道 |

※仅限于出厂设定为8时，最后频道为CH2. ⚠

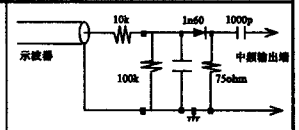
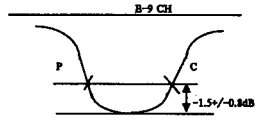
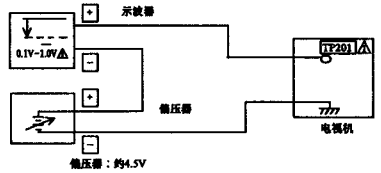
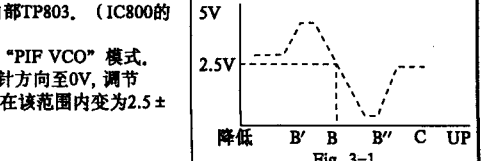
| 图像方式 | 1 柔和 | 2 标准 | 3 动态 |
|---|---|---|---|
| 对比度 | # | # | # |
| 彩色 | # | # | # |
| 亮度 | 0 | 0 | 0 |
| 色调 | 0 | 0 | 0 |
| 鲜明度 | # | # | # |
| 图像NR | OFF | OFF | OFF |
| 白色色温 | 0 | 0 | 0 |
| SHAKIT | OFF | OFF | OFF |
| 低音+ | # | # | # |
| SOR/SPA | OFF | OFF | OFF |
| 电平 | 0 | 0 | 0 |
| 低音 | # | 0 | # |
| 高音 | # | 0 | # |

#保养调整状态数据

| 样本 | 磁场（垂直/水平）nT | | 背景 | 语言选择 | S-制式 |
|---|---|---|---|---|---|
| B | 20,000 | 40,000 | 17000K ⚠⚠ | 中文 | I |
| C (新加坡) | -10,000 | 40,000 | 17000K ⚠⚠ | 英语 | B/G |
| F | -10,000 | 40,000 | 17000K ⚠⚠ | 英语 | B/G |
| G | 30,000 | 20,000 | 18000K ⚠⚠ | 阿拉伯语 | B/G |
| 澳大利亚 | -50,000 | 20,000 | 17000K ⚠⚠ | 英语 | B/G |



# PIF的调整与检查

| 序号 | 调试点 | 调试条件及调试内容 | 波形或其他 |
|---|---|---|---|
| 1 | 调谐器IFT(预设)的调整(TU200) | 1. 在无信号输入的接收状态下，使调谐器处于接收E-10频道信号之状态 调节PLL数据.<br>2. 接扫描振荡器输出线圈于调谐器天线接线端(射频扫描).<br>3. 调节扫描振荡器的输出电平为80dBμV.<br>4. 接响应引线(带有检波器的低阻抗探针;见图1)于调谐器的中频输出端. (只接探针于调谐器的中频输出端)<br>5. 设射频自动增益控制RF AGC的电压值于0至6V间的与波形不接触之位置.<br>6. 再将调谐器的中频线圈所得波形调至图2所示的规定要求.<br>注意: 作此项调整时，必须盖上调谐器盒盖而进行. |  <br>图1<br>  <br>图2 |
| 2 | 射频自动增益控制RF-AGC插入的调整(I2C总线) | 1. 接收PAL制式彩条信号.<br>信号强度:54±1dBμV(端接75Ω电阻)<br>2. 按图3所示的要领，接示波器于TP201.（调谐器的自动增益控制插接端）⚠<br>  <br>图3 ⚠<br>3. 在保养调整状态下呼出"RF-AGC"方式，调节"RF-AGC"总线数据,使调谐器输出引脚处的电压值达到比最大电压值减低0.1V至1.0V的数值.⚠<br>4. 调节天线输入信号强度至63至67 dBμV，确认无噪声出现.⚠<br>5. 再调节天线输入信号强度至90至95 dBμV，确认无交忧调制差怕出现. | 注意：不使用50/75Ω阻抗转换器时，50Ω信号强度会改变54±1dBμV(端接75Ω电阻)为52±1dBμV(端接75Ω电阻)<br>注意：使用该转换器时,应考虑由转换器带来的阻抗损失 |
| 3 | PIF VCO线圈的调整. | 2. 不接收任何信号.<br>3. 接数值式电压计于本机内部TP803.（IC800的引脚（54））<br>4. 选设保养调整状态，选择 "PIF VCO" 模式.<br>5. 确认其读数范围为: 逆时针方向至0V，调节T800，使TP803的DC电压在该范围内变为2.5±1.0V. | TP803的DC电压<br>  <br>Fig. 3-1<br>将T800调节至B′和B″之间的B点.<br>※ 向上旋转线圈为逆时针方向旋转; 向下旋转线圈为顺时针方向旋转. |

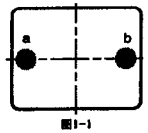
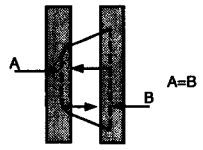
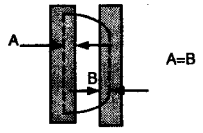
# 声音制式的调整

| 序号 | 调试点 | 调试条件及调试内容 | 波形或其他 |
|---|---|---|---|
| 1 | 射频副声音<br>(总线调试)<br>仅限CX68KF5<br>／29B-FX1 | (1) 接收PAL B/G制式信号.<br>音频信号成分:400Hz, 100%调制(50KHz偏转)<br>(2) 接示波器于音频输出端(左或右). (端接10kΩ电阻)<br>(3) 在保养调整状态下,呼出"RF-S-SOUND"项目.<br>(4) 触按音量上移或下移(UP/DOWN)键,增加或减少"RF-S-SOUND"数据,使400Hz正弦波幅值达到1.76Vp-p的规定要求.<br>调整误差:1.76Vp-p ± 0.10Vp-p. | |
| 2 | 副音量(总线调试) | (1) 接收PAL制式彩条信号. 信号成分:400Hz,100%调制.<br>(2) 接仪器(+)的探针于(SI)接线端.<br>(3) 在保养调整状态下选择"SUB-VOL(副音量)项目.<br>(4) 调节"SUB-VOL(副音量)数据, 使仪器的读数达到5.2Vrms(左声道)的规定要求.<br>调整值:5.2Vrms ± 0.3Vrms | 注意:<br>*环绕系统:OFF<br>*声像模式:标准<br>*S-标准状态<br>*S-音量:最大<br>*低音+:OFF |
| 3 | 消音功能的检查 | (1) 接收"PAL制式彩条"信号.<br>(2) 设音量控制于最大位置, 接着检查扬声器的声音输出,然后,设电视机于无信号接收状态.<br>(3) 此时,检查消音功能是否动作.<br>(4) 最后,设CTV音量控制于最小位置. | |

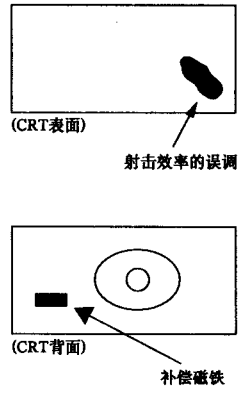
# 中音频（NICAM/IGR）的调整

| 序号 | 测试点 | 测试条件及测试内容 | 波形或其他 |
|---|---|---|---|
| 1 | VCO线圈<br>T2300<br>仅限型号<br>#SX68KF7,<br>29B-FG5,<br>29B-FG8,<br>29B-FX8,<br>29B-FX5,<br>29B-FX1. | (1) 接收PAL制式彩条信号.<br>（设接收频率: AFT关闭时的VHF高频率. ）<br>(2) 接数值式电压计于TP2300或SC200的引脚（1）（于本机内部）.<br>(3) 确认其读数范围为: 逆时针方向至0V, 顺时针方向至5V. 调节T2300, 使TP2300的DC电压在该范围内变为2.5 ± 0.1V.<br>*单装置调节<br>Vcc / 5.0 ± 0.1V<br>中频输入频率为38.9MHz ± 10KHz. 控制其于该范围之内.<br>调节T2300, 使TP2300（于NICAM装置之中）的DC电压变为2.5 ± 0.1V.<br>完成单装置调整后, 通过实际操作进行检查.<br>调接收频率与选定频道频率一致. （AFT关闭）<br>正确的电压值应为2.5 ± 1.0V. | |

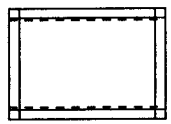
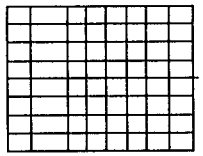
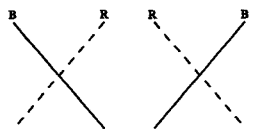
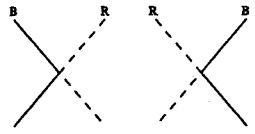
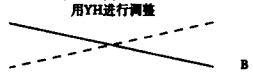
# 彩色纯度的调整

| 序号 | 调试点 | 调试条件及调试内容 | 波形或其他 |
|---|---|---|---|
| 1 | 彩色纯度的调整 | (1) 通过遥控器选择单绿色画面,然后,调节对比度控制设定其电子束电流值为1.6mA. ⚠<br>(2) 通过消磁线圈, 完全消除显像管所带磁场.<br>有关调整磁场<br>•BH=0<br>•Bv=参见工作指令单.<br>有关调整磁场请参见12/30页.<br>(3) 事先将色彩纯度调节磁铁调整为0, 并对聚焦度进行粗调.<br>用P-MG调节为中间的A级.<br>(4) 转动DY, 通过显微镜观察如图1-1所示的a b两点. 调节着屏点, 使之达至等级A的要求.<br>(5) 如果a b两点为不平衡状态时, 将画面补正到中间的"AB等级.<br>(6) 调节光栅转向朝东为0.<br>(7) 扭紧偏移线圈的螺丝.<br>紧固力矩:108N ± 20N ( 即11kgf ± 2kgf )<br>(8) 检查显示管四个端角部的着屏情况是否满足等级A的要求. 如果不满足则需在纯磁铁上贴磁片, 并对其进行调节.<br>注意:作此项调整前, 先用大于1600 ± 50 μ A的电子束电流预热CRT30分钟.<br>注意:选择保养调整状态后, 触按工序用遥控器上的单色键, 就会变为单色(绿色)画面.<br>•每触按一次单色键,即如下顺序变化:<br>⚠<br>单色画面(绿色) 单色画面(蓝色) 单色画面(红色)<br>单色画面解除<br>•关于均匀性的调整,请参见下页所述的调整项目. |  <br><br>图1-1<br>  <br><br>图1-2 CRT右侧 "A" 级着屏<br>  <br><br>图1-3 CRT左侧 "A" 级着屏<br>•连续触按单色键1秒钟以上, 即使未设定于保养调整状态也自动地变为单色设定状态.<br>即使是TEXT键或"R,G,Cy"键, 也可以直接转换为各单色画面. |

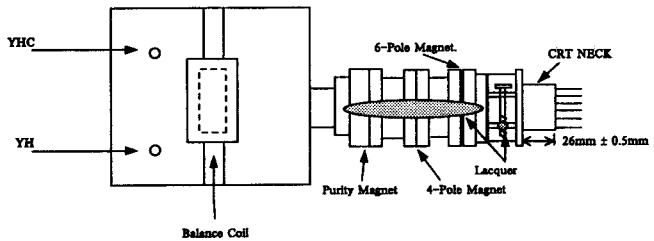
# 均匀性的调整

| 序号 | 调试点 | 调试条件及调试内容 | 波形或其他 |
|---|---|---|---|
| 1 | 均匀性的调整<br>(此项调整必须于色彩纯度与画面聚焦度的调整完毕后进行) | 开始调整之前, 必须确认水平磁场为0G,垂直磁场位于所规定的调整用磁场.然后进行去磁处理.<br>(将电视机朝北而进行红色均匀性的调整)<br>1. 水平磁场: 设单色荧屏于红色,调整为+0.25G.<br>2. 注意CRT边缘而进行工作. 如果安装不稳定时, 在CRT背面安装补偿磁铁而进行调整.<br>(见图1)<br>(将电视机朝南而进行红色均匀性的调整)<br>1. 水平磁场: 设单色荧屏于红色,调整为-0.25G.<br>2. 注意CRT边缘而进行工作. 如果安装不稳定时, 在CRT背面安装补偿磁铁而进行调整.<br>(按与上记相同方法进行蓝色均匀性的调整)<br>•安装补偿磁铁中,接收棋盘格测试图案信号.<br>检查荧屏上有无出现模糊现象或弯曲线条.<br>如果有出现, 调节补偿磁铁的位置,以获得最清晰状态. |  <br><br>图1 |

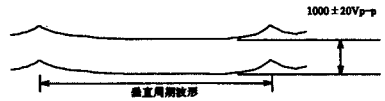
# 画面聚焦度的调整

| 序号 | 调试点 | 调试条件及调试内容 | 波形或其他 |
|---|---|---|---|
| 1 | 画面聚焦度的调整.<br>（于色彩纯度调整之后进行） | (1) 接收E-2频道(棋盘格测试图案)信号.<br>(2) 通过遥控器呼出标准图案状态.<br><br>(静聚焦度的调整)<br>1. 调节4极聚焦磁铁的开闭角度与旋转, 使蓝色线条与红色线条重叠.<br>2. 调节6极聚焦磁铁的开闭角度与旋转, 使绿色线条再与蓝，红色重叠线条重叠.<br><br>(动聚焦度的调整)<br>1. 贴调整模于规定位置,使偏转线圈处于上下左右之中心位置. (必须为直线,并没有出现模糊不清的水平和垂直线条)<br>2. 用偏转线圈的调整(YH,YHC)键以调节画面上中央部分Y轴的上下位置与红色、蓝色线条. (见图1和2)<br>3. 如果画面中央部分的X轴上的水平红色线条与蓝色线条(XV)偏移时，调节偏转线圈上的平衡线圈,使水平红色线条与蓝色线条(XV)达到规定要求. (见图3)<br>4. 确认整体画面上未发生问题之后, 贴两片调整模于CRT上,用玻璃胶带固定之. 加封固胶于偏转线圈和磁铁装置(色彩纯度调节磁铁、4极与6极聚焦磁铁) 的固定螺丝，然后用涂漆封固偏转线圈和磁铁装置的固定螺丝.<br>⚠ (注意)<br>在画面上下部分的聚焦度调整不符合规定要求之场合,向左右方向摆动而调节偏转线圈.<br><br>  <br>Fig-4<br>Adjust by Swing DY |  <br>  <br>图1<br>用YHC进行调整<br>  <br>图2<br>用YH进行调整<br>  <br>图3<br>用平衡线圈进行调整 |

(注意)关于CRT的图解, 请参见下页.



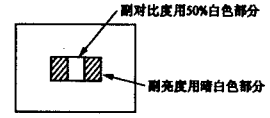
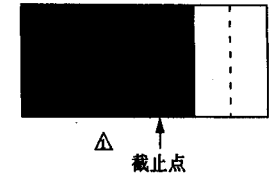

# 焦点的调整

| 序号 | 调试点 | 调试条件及调试内容 | 波形或其他 |
|---|---|---|---|
| 1 | 动态聚焦的调整:L1680<br>（电源装置内） | 1. 接收E-5频道(单像管图案)信号.<br>2. 通过遥控器设电视机于标准图案状态.<br>3. 接同步示波器于T1680的引脚8上.<br>4. 旋转L1680,使水平周期波形的振幅调为1000Vp-p.<br>  | 约1000Vp-p |
| 2 | 聚焦的调整:FBT焦点-VR<br>（电源装置内）<br>⚠ | 1. 接收E-5频道(单像管图案)信号.<br>2. 通过遥控器设电视机于标准图案状态.<br>3. 调节聚焦VR-1(F1),使画面上左下位置处的"575"文字周围的水平线呈现最清晰程度.<br>4. 调节聚焦VR-2(F2),使画面上左下位置处的"575"文字周围的垂直线呈现最清晰程度.<br>5. 重复操作3步骤而进行聚焦的调整. | |

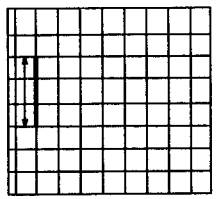
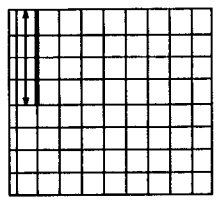
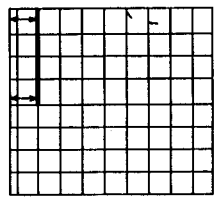
# 截止、蓝色背景的调整

| 序号 | 调试点 | 调试条件及调试内容 | 波形或其他 |
|---|---|---|---|
| 1 | CRT截止的调整<br>(截止/蓝色背景):<br>保养调整状态下<br>调整I2C总线数据 | 1. 接收E-5频道(单像管图案)信号.<br>2. 通过遥控器设电视机于标准图案状态.<br>3. 打开保养调整开关以选择截止/蓝色背景状态.<br>4. 选择荧屏VR0/10位置.<br>5. 触按遥控器上的"-/—"键以选择水平中心状态.<br>6. 顺时针方向旋转荧屏VR 使最初发色的横一光栅调到微光线.<br>7. 调节其它两色的截止数据，粗调横一光栅,使其呈白色信号. (注1)<br>8. 逆时针方向旋转荧屏VR 使横一光栅呈消失点状态.<br>注1:先用大于1600 ± 50 μ A的电子束电流预热30分钟后再进行该调整. ⚠<br>9. 触按遥控器上的"-/—"键以选择标准状态. | *作此项调整之前,必须检查红绿蓝三色的截止与蓝绿两色的激励是否初期值.<br><br>在白色或绿色信号的单色画面上. |
| 2 | 白色平衡、蓝色背景<br>(截止BKGD)<br>以及I2C总线数据的调整<br>(射频信号) | 1. 接收E-5频道(单像管图案)信号.<br>2. 通过遥控器设电视机于标准图案状态.<br>3. 接电子束电流计于TP1601与TP1602之间.<br>4. 粗调R1633(副对比度VR)，使电子束电流达到1.8mA左右.<br>5. 输入声像信号，接收窗口图案信号. (通过信号发生器发生PAL制式彩色同步信号)<br>6. 调节绿色激励与蓝色激励的数据，使白色峰值的色温达到17000K(2)或18000K(1)的规定要求.<br>7. 调节红色截止、绿色截止以及蓝色截止的信号使窗口右侧的暗色部分为17000K(2)或18000K(1)的色温. ⚠ ⚠<br>8. 重调白色峰值处的色温.<br>9. 检查白色低电平处的色温是否符合17000K(2)或18000K(1)的规定要求. ⚠<br>⚠ ⚠<br>注1:先用大于1600 ± 50 μ A的电子束电流预热30分钟后再进行该调整.<br>(在白色或绿色信号的单色画面上. )<br>*有关色温 参见出厂前的初期设定表. | 注1:<br>红色截止的上移:"1"键<br>红色截止的下移:"4"键<br>绿色截止的上移:"2"键<br>绿色截止的上移:"5"键<br>蓝色截止的上移:"3"键<br>蓝色截止的上移:"6"键<br>用上列数字键可以进行数据的上移或下移工作.<br>17000K X:0.261 Y:0.261(2) ⚠<br>18000K X:0.255 Y:0.255(1) ⚠<br>*12300K X:0.272 Y:0.275<br>(使用美能达色温计CA-100)<br>注1:<br>绿色激励的上移:"7"键<br>绿色激励的下移:"-"键<br>蓝色激励的上移:"8"键<br>蓝色激励的上移:"0"键<br>用上列数字键可以进行数据的上移或下移工作. |
| 3 | 白色平衡、蓝色背景<br>(截止DVD BKGD)<br>以及I2C总线数据的调整<br>(DVD信号) | 1. 通过DVD信号（复合信号）接收窗口图案信号.<br>2. 按上述2之5以后项目进行调节. (17000K(2)或18000K(1)) ⚠<br>(绿色激励 蓝色激励 红色截止 绿色截止 蓝色截止)<br>2项调整结束后进行该调整. | 注2:使用由调整用信号发生器产生的窗口图案信号.<br><br>(通过信号发生器发生PAL制式彩色同步信号) |

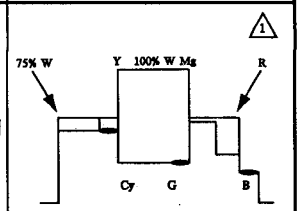
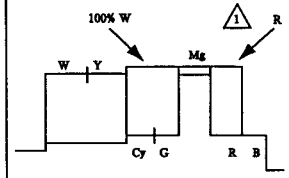
# 副对比度 副亮度的调整

| 序号 | 调试点 | 调试条件及调试内容 | 波形或其他 |
|---|---|---|---|
| 4 | 最大电子束的调整:R1759 | 1. 在标准状态下接收E-5频道(单像管图案)信号.<br>2. 通过遥控器选择标准图像状态. (声像模式:动态状态)<br>3. 接电子束电流计于TP1601与TP1602之间.<br>电流计测试范围:3mA<br>TP1602于电流计的负(-)侧<br>TP1601于电流计的正(+)侧<br>4. 调节R1759(副对比度VR)，使电子束电流达到1.8mA ± 20 μ A的规定要求. ⚠<br>注2:先用大于1600 ± 50 μ A(1)的电子束电流预热30分钟后再进行该调整.<br>(在白色或绿色信号的单色画面上. ) | 在标准状态下 |
| 5 | 副对比度(SUB-CONT) 以及I2C总线数据的调整<br>(射频信号) | 1. 输入声像信号，接收窗口图案信号.<br>2. 通过遥控器设定标准图案状态.<br>3. 通过遥控器选择副对比度调整状态,使50%白色信号调到165 ± 10cd. ⚠ | 注3:使用美能达色温计CA-100的"Y".<br>注4:使用由调整用信号发生器产生的窗口图案信号.<br>(附带PAL制式彩色同步信号) ⚠<br>注5: 窗口图案 |
| 6 | 副对比度(SUB-CONT DVD) 以及I2C总线数据的调整(DVD信号) | 1. 选择DVD调整状态.<br>2. 接收由DVD信号发生器产生的信号.(复合信号)(窗口图案信号)<br>3. 通过遥控器设定标准图案状态.<br>4. 通过遥控器选择副对比度调整状态(DVD),使50%白色信号调到165 ± 10cd. ⚠ |  |
| 7 | 副亮度<br>(SUB-BRI)<br>以及I2C总线数据的调整<br>(射频信号) | 1. 输入声像信号，接收窗口图案信号.<br>2. 通过遥控器设定标准图案状态.<br>3. 通过遥控器选择副亮度调整状态,使窗口图案的右侧暗白色部分调到5.5 ± 0.5cd.(1) ⚠ | 参考<br>*接收E-2频道(棋盘格测试图案)信号或同等信号.<br>1. 通过遥控器设定标准图案状态.<br>2. 使窗口图案的第3个(1)从左起1至5)黑色部分调到沉点. ⚠ |
| 8 | 副亮度<br>(SUB-BRI DVD)<br>以及I2C总线数据的调整<br>(DVD信号) | 1. 选择DVD调整状态.<br>2. 接收由DVD信号发生器产生的信号.(复合信号)(窗口图案信号)<br>3. 通过遥控器设定标准图案状态.<br>4. 通过遥控器选择副亮度调整状态(DVD), 使窗口图案的右侧暗白色部分调到5.5 ± 0.5cd.(1) ⚠ |  |

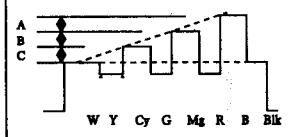
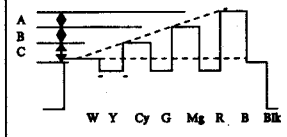
# 水平 垂直及偏转环路的调整

| 序号 | 调试点 | 调试条件及调试内容 | 波形或其他 |
|---|---|---|---|
| 1 | 主画面的调整 | | 括弧内接收频的接收信号如下所示:<br>（E-2）：棋盘图案信号（50Hz）<br>（E-5）：单像管图案信号（50Hz） |
| | 垂直幅度50Hz | 将其过扫描调至8.5%（E-5） | |
| | 垂直线性度50Hz | 将其线性度调至最佳. | |
| | 垂直信号校正 | 已预设了(**).（如没达到规定线性度,则调整之.） | |
| | 垂直中心50Hz | 将荧屏的中心相对CRT的几何中心进行较对.（E-5） | |
| | 水平中心50Hz | 将荧屏的中心相对CRT的几何中心进行较对.（E-5） | |
| | 水平尺寸50Hz | 将其过扫描调至8.5%.（E-5） | |
| | E/W抛物面反射器50Hz | ⚠ ⚠<br>调节棋盘测试图案左端的第二条垂直线条,使中央部分的四个方块调直.（E-2）(见图1-1) |  <br>⚠2<br>图1-1 |
| | EW角部50Hz | ⚠ ⚠<br>调节棋盘测试图案左端的第二条垂直线条,使其线端调直.（E-2）(见图1-2) | |
| | 梯形（50Hz） | ⚠ ⚠<br>调节棋盘测试图案左端的第二条垂直线条,使D1(第一条垂直线条的中央部分与画面端之间)与D2(第一条垂直线条的上部部分与画面端之间)之间的距离达到相等程度. |  <br>⚠2<br>图1-2 |
| | 垂直-ENT | 预设完毕.(**) | |
| | 水平-ENT | 预设完毕.(**) | |
| | 其他 | 50Hz条件下的调整完成后，对垂直幅度60 垂直线性度60 垂直信号校正60 垂直中心60 水平中心60 水平尺寸60 E/W抛物面反射器60、EW角部以及梯形（60）等项目，其综合数据将自动被输入. |  <br>D2<br>D1<br>⚠2<br>图1-3 |
| | I2C总线数据的调整 | ⚠<br>注意) 60Hz条件下的调整完成后,切勿改变50Hz条件的数据，否则60Hz条件的数据就根据50Hz条件数据的要求进行工作. | 然而，如60Hz条件下的数据发生较大偏差，则需对60Hz的各项进行调整. |

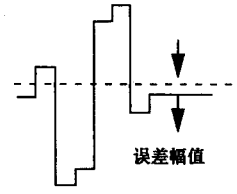
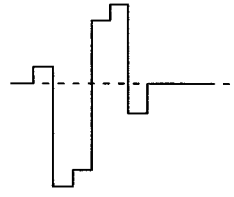
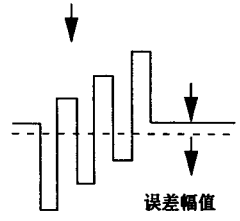
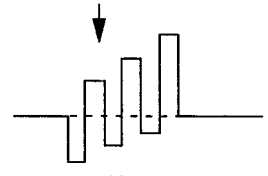
# PAL制式色度信号电路的调整

| 序号 | 调试点 | 调试条件及调试内容 | 波形或其他 |
|---|---|---|---|
| 1 | 副彩色以及I2C总线数据的调整 | 1. 接收E-10频道(PAL制式彩条)信号.<br>2. 通过遥控器设定标准图案状态.<br>3. 接示波器于TP802(ky)的引脚4.(使用10:1的探针)<br>测试范围:2V/段<br>扫频时间:20微秒/段<br>4. 通过遥控器选择副彩色"SUB-COL"调整状态,然后调节副彩色数据,使PAL制式彩条信号中的75%白色信号电平与红色信号电平达到图1-1所示的相同程度. |  <br><br>图1-1 |
| 2 | 副彩色<br>(SUB COL DVD)<br>以及I2C总线数据的调整 | 1. 接收DVD频道信号.(半彩色信号)<br>2. 通过遥控器设定标准图案状态.<br>3. 接示波器于TP802(ky)的引脚4.(使用10:1的探针)<br>测试范围:2V/段<br>扫频时间:20微秒/段<br>4. 通过遥控器选择副彩色"SUB COL DVD"调整状态,然后调节副彩色数据,使PAL制式彩条信号中的100%白色信号电平与红色信号电平达到图1-2所示的相同程度.<br><br>(使用由调整用信号发生器产生的彩条信号) |  <br><br>图1-2 |

# NTSC制式色度信号电路的调整

| 序号 | 调试点 | 调试条件及调试内容 | 波形或其他 |
|---|---|---|---|
| 1 | 副色调<br>(SUB-TINT)<br>以及I2C总线数据的调整 | 1. 选择副色调调整状态(自动亮度截止),然后通过声像信号的输入而接收NTSC制式彩条信号.<br>2. 接示波器于TP801.<br>测试范围:50mV/段(交流电) (使用10:1的探针)<br>扫频时间:10微秒/段<br>3. 调节副色调数据,以获得图1-1所示的波形.<br>TP801.....(KY)的引脚6 |  <br>图1-1<br>A-B-C |
| 2 | 副色调<br>(SUB-TINT<br>DVD)<br>以及I2C总线数据的调整 | 1. 选择SUB-TINT DVD调整状态(自动亮度截止),然后接收DVD彩条信号.<br>2. 接示波器于TP801.<br>测试范围:50mV/段(交流电)<br>扫频时间:10微秒/段 (使用10:1的探针)<br>3. 调节副色调数据,以获得图1-2所示的波形.<br>4. 取消此项调整状态的设定.<br><br>(使用由调整用信号发生器产生的彩条信号) |  <br>图1-2<br>A-B-C |

# SECAM制式色度信号电路的调整

| 序号 | 调试点 | 调试条件及调试内容 | 波形或其他 |
|---|---|---|---|
| 1 | SECAM制式黑色信号电平<br>(R-Y/B-Y)以及I2C总线数据的调整 | 1. 接收SECAM制式彩条.<br>2. 选择SECAM制式黑色信号电平的红色亮度调整状态.<br>3. 接示波器于IC800的引脚20(TP802/红色信号输出端).<br>4. 调节红色亮度数据,使无信号线条与信号线条间的误差幅值达到图2-1(b)所示的最小程度.<br>5. 选择SECAM制式黑色信号电平的蓝色亮度调整状态.<br>6. 重新接示波器于TP801(KY)的引脚6.<br>按与3.项相同的条件进行.<br>7. 调节蓝色亮度数据,使无信号线条与信号线条间的误差幅值达到图2-2(b)所示的最小程度. |  <br>Fig. 2-1(a)<br>  <br>Fig. 2-1(b)<br>  <br>Fig. 2-2(a)<br>  <br>Fig. 2-2(b) |

## 功能检查（1）（视频和音频）接上页

| 编号 | 调整点 | 调整步骤及其条件 | 波形及其它 |
|---|---|---|---|
| 1 | 垂直斜度（I²C总线控制） | 1. 接收单像管图形信号。<br>2. 触按菜单（MENU）键后，选择图像模式（Picture Mode），触按对比度（CONTRAST）键。<br>3. 通过音量键提高或降低“V-LIN”直至单像管中心的水平线处于消隐开始位置。 | |
| 2 | 垂直转换-50（I²C 总线控制） | 1. 调用“V-CENT”模式。<br>2. 通过音量键提高或降低“V-CENT”直至图像处于中心位置。 | |
| 3 | 垂直振幅50（I²C 总线控制） | 1. 调用“V-AMP”模式。<br>2. 通过音量键提高或降低“V-AMP”使之变为典型的9.5%过扫描。<br>调节标准9.5% 范围 +1% -0%。 | |
| 4 | 同步校正（I²C总线控制） | 固定数据无需调节。 | |
| | 水平转换(50)（水平居中）（I²C 总线控制） | 1. 调用“H-CENT”模式。<br>2. 通过音量键提高或降低“H-CENT”以使图像水平居中。 | |
| 5 | 焦点的调整 | 1. 接收单象管图案信号。<br>2. 通过遥控器设电视机于标准图象状态。<br>3. 调节聚焦旋钮以得到最佳焦点。 | |
| 7 | 标准图像（NORMAL）键 | 1. 在图像方式（Picture Mode），触按标准图像（NORMAL）键。有关图像方式的设定均变为标准设定。<br>（各项标准设定请参见(12/30页所示的内容） | |
| 8 | 白色色温（WHITE TEMP）键 | 1. 接收单像管图案信号。<br>2. 通过功能（FUNCTION）键，选定白色色温（WHITE TEMP）项目。<br>3. 通过音量调节（增大/减小）键，检查白色色温变化是否符合如下要求：<br>标准（STANDARD）：标准设定时<br>暖色（WARM）：向偏红色方向变化<br>冷色（COOL）：向偏绿色方向变化 | |

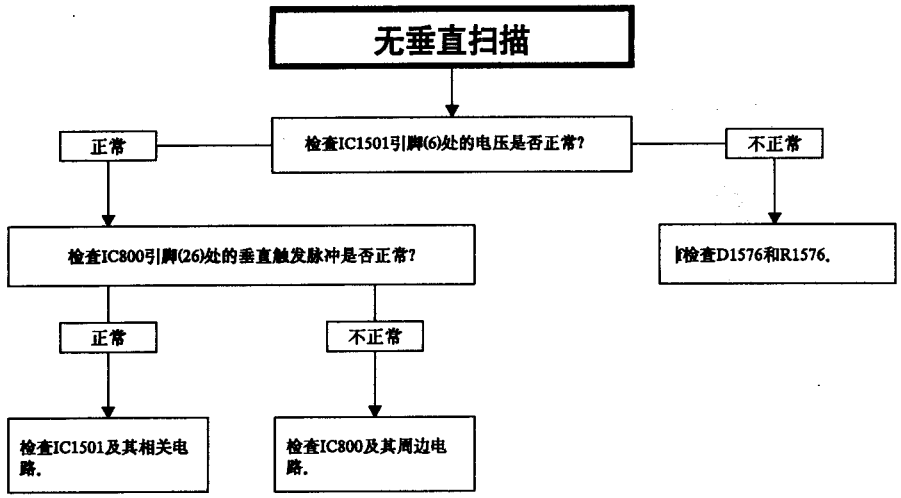
## 功能检查（2）（视频和音频）接上页

| 序号 | 调试点 | 调试条件及调试内容 | 波形或其他 |
|---|---|---|---|
| 9 | 彩色制式<br>仅限于型号<br>29B-FG5、29B-FG8 29G-FX5<br>29B-FX8以及<br>29B-FX1 | 1. 接收“PAL制式彩条”信号，触按彩色制式（COLOR SYSTEM）键，选择PAL以外的彩色制式，检查彩色（COLOR）键的工作是否正常。<br>然后，再选择“PAL”制式，再检查彩色（COLOR）键的工作是否正常。<br>2. 接收“SECAM制式彩条”信号，触按彩色制式（COLOR SYSTEM）键，选择SECAM以外的彩色制式，检查彩色（COLOR）键的工作是否正常。<br>然后，再选择“SECAM”制式，再检查彩色（COLOR）键的工作是否正常。<br>3. 接收NTSC3.58制式彩条信号，触按彩色制式（COLOR SYSTEM）键，选择NTSC3.58以外的彩色制式，检查彩色（COLOR）键的工作是否正常。<br>然后，再选择NTSC3.58制式，再检查彩色（COLOR）键的工作是否正常。<br>4. 通过声像装置接收“NTSC4.43/3.58制式彩条”信号，触按彩色制式（COLOR SYSTEM）键，选择NTSC4.43以外的彩色制式，检查彩色（COLOR）键的工作是否正常。<br>然后，再选择“NTSC4.43”制式，再检查彩色（COLOR）键的工作是否正常。 | |
| 10 | #仅限于型号<br>29B-FG5、29B-FG8 29G-FX5<br>29B-FX8以及<br>29B-FX1 | 1. 接收“PAL-D/K制式”信号，触按“SOUND SYSTEM”(音响系统)键，以选择B/G以及I声音制式 然后确认这时的声音不应正常地发出。<br>选择D/K声音制式，检查这时的声音输出并音响系统的工作是否正常。<br>2. 接收“PAL-I制式”信号，触按“SOUND SYSTEM”(音响系统)键，以选择B/G以及D/K声音制式 然后确认这时的声音不应正常地发出。<br>选择I声音制式，检查这时的声音输出并音响系统的工作是否正常。<br>3. 接收“PAL-B/G制式”信号，触按“SOUND SYSTEM”(音响系统)键，以选择I以及D/K声音制式 然后确认这时的声音不应正常地发出。<br>选择B/G声音制式，检查这时的声音输出并音响系统的工作是否正常。 | |
| 11 | 耳机声音输出 | 1. 接收带有400Hz、100%调制（±50KHz偏移）音响信号的PAL制式色带信号。<br>2. 将音量调至最大，检查耳机是否有400kHz的声音输出，并确认扬声器中不应有声音输出。<br>(参考:耳机声音输出电平如下:)<br>⚠ 耳机声音输出(断开)<br>63 — 1.0 Vp-p<br>40 — 500 mVp-p | |

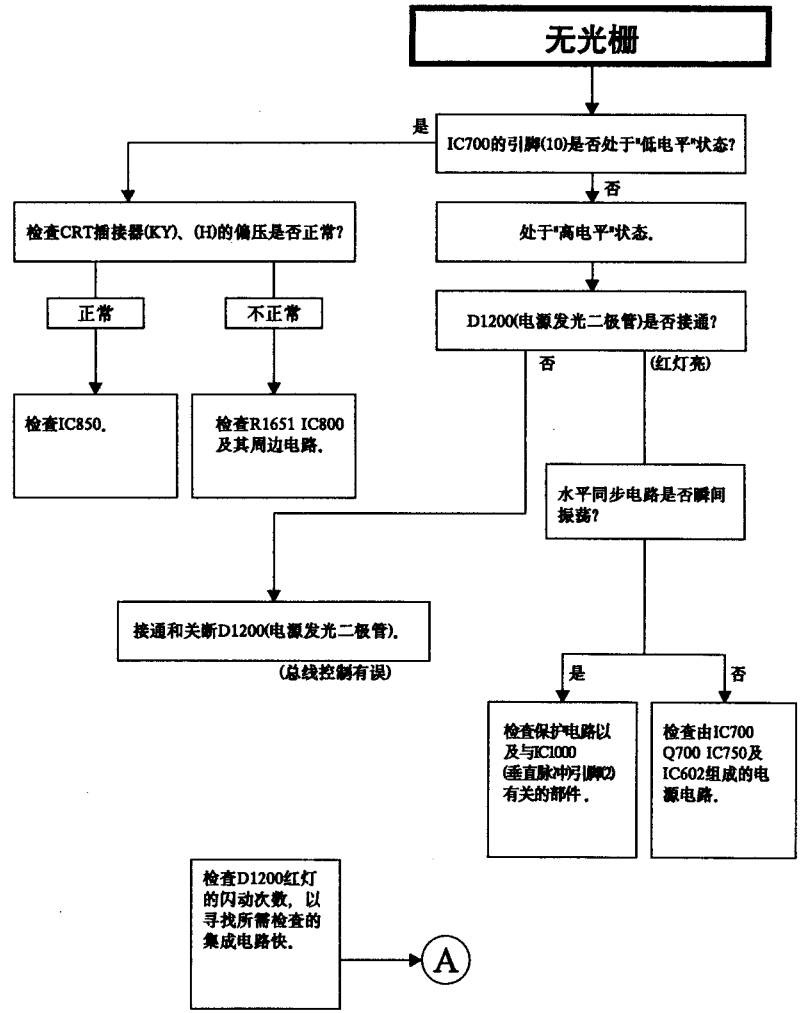
# 保护电路性能的检查

| 序号 | 调试点 | 调试条件及调试内容 | 波形或其他 |
|---|---|---|---|
| 1 | 高压保护电路 | 1) 接收E-5频道(单像管图案)信号.<br>2) 接偏压器于D1621的阴极(R1662侧).<br>3) 调整偏压器电压于15V,确认这时的高压保护电路处于不正常状态.<br>4) 调整偏压器电压于24V,确认这时的高压保护电路处于正常状态. | 参考:通常为17.7V左右. |
| 2 | 其它保护电路 | *在通过短接+B线路等的平流电解电容器进行该保护电路的检查时,请注意切勿损伤、损坏电路元件. | |

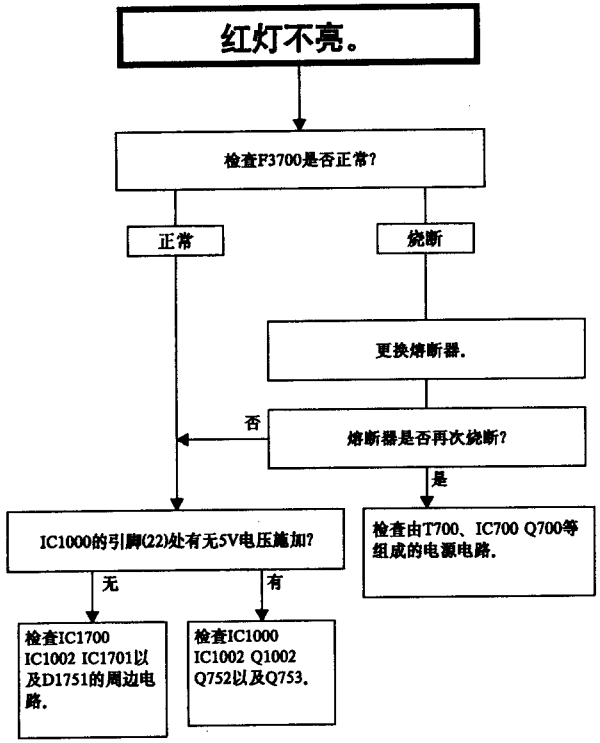
# 故障检修流程图




# 故障检修流程图（接上页）

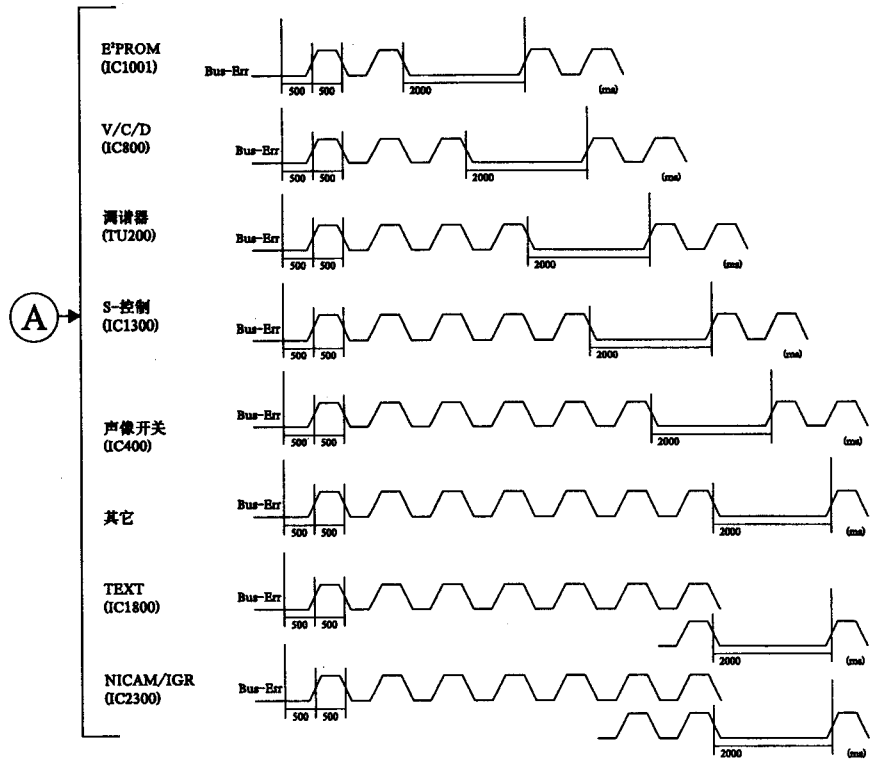


# 故障检修流程图（接上页）

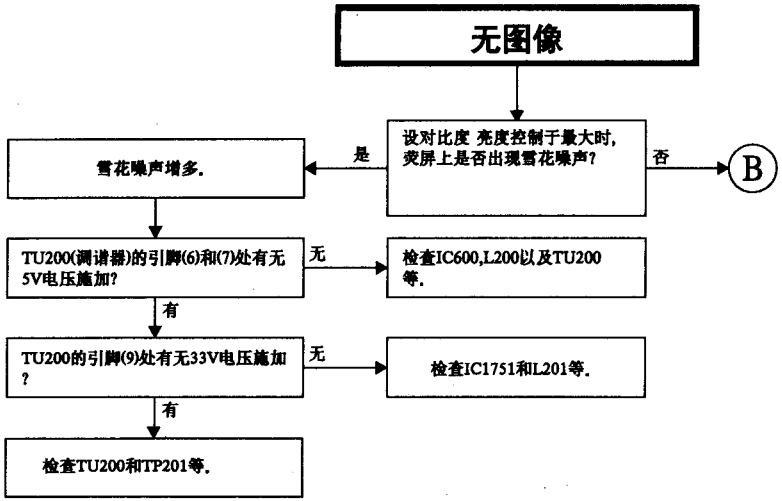




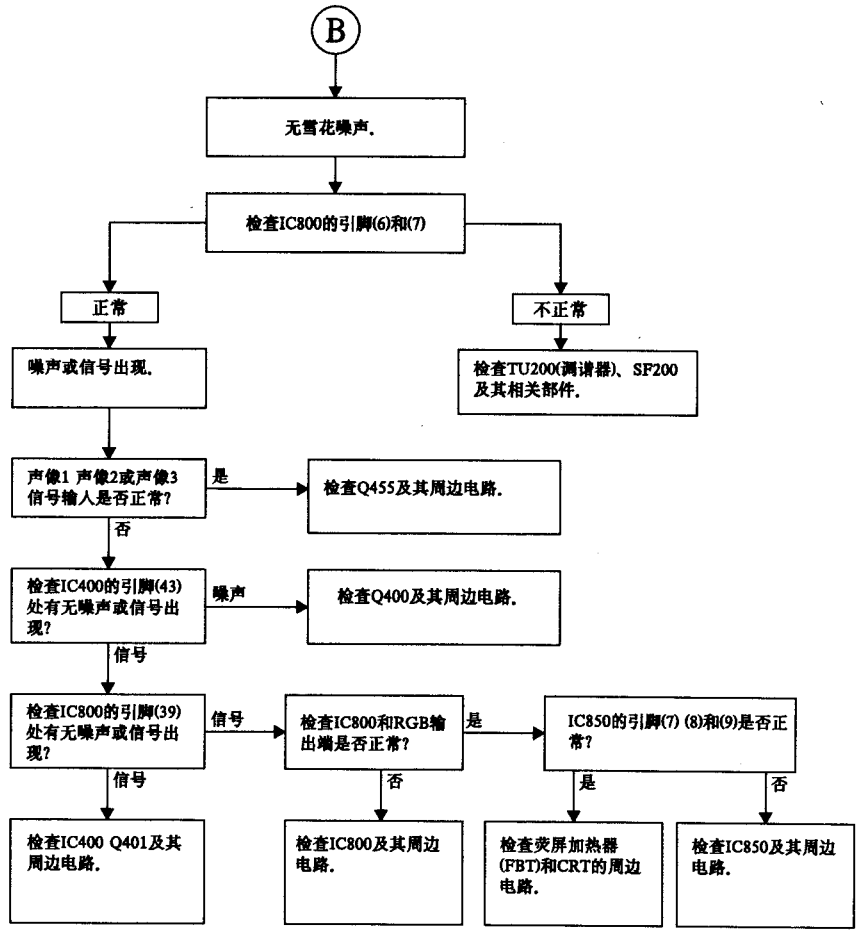

# 故障检修流程图（接上页）



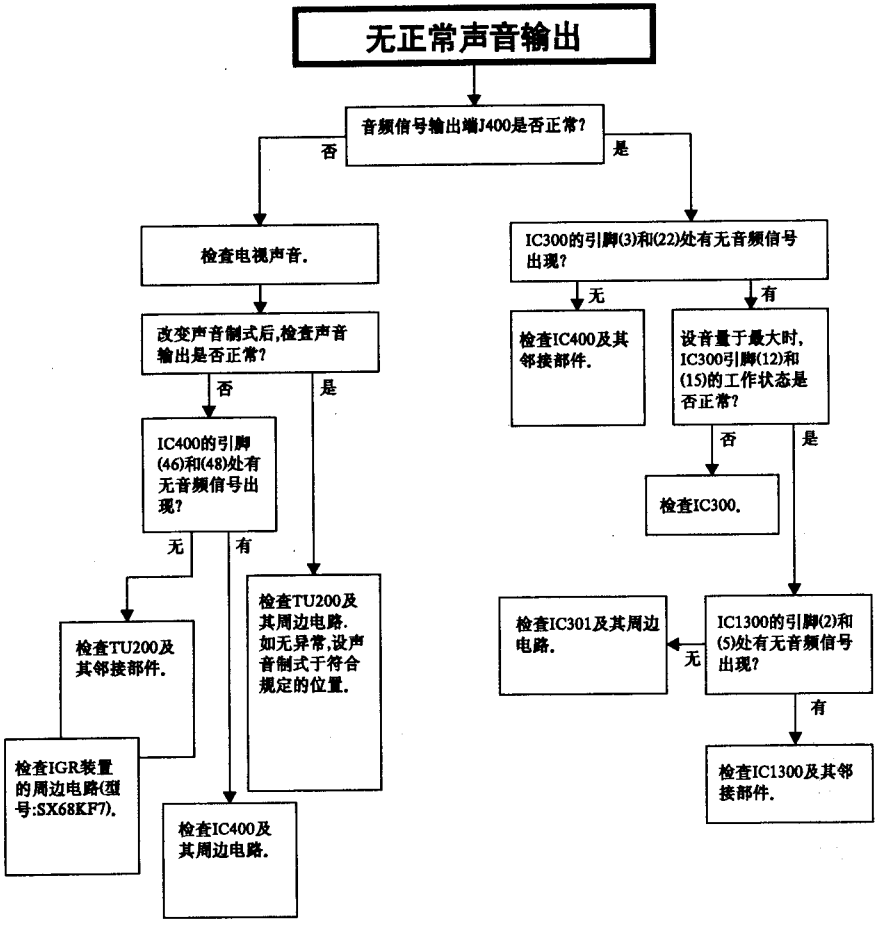
## 故障检修流程图（接上页）



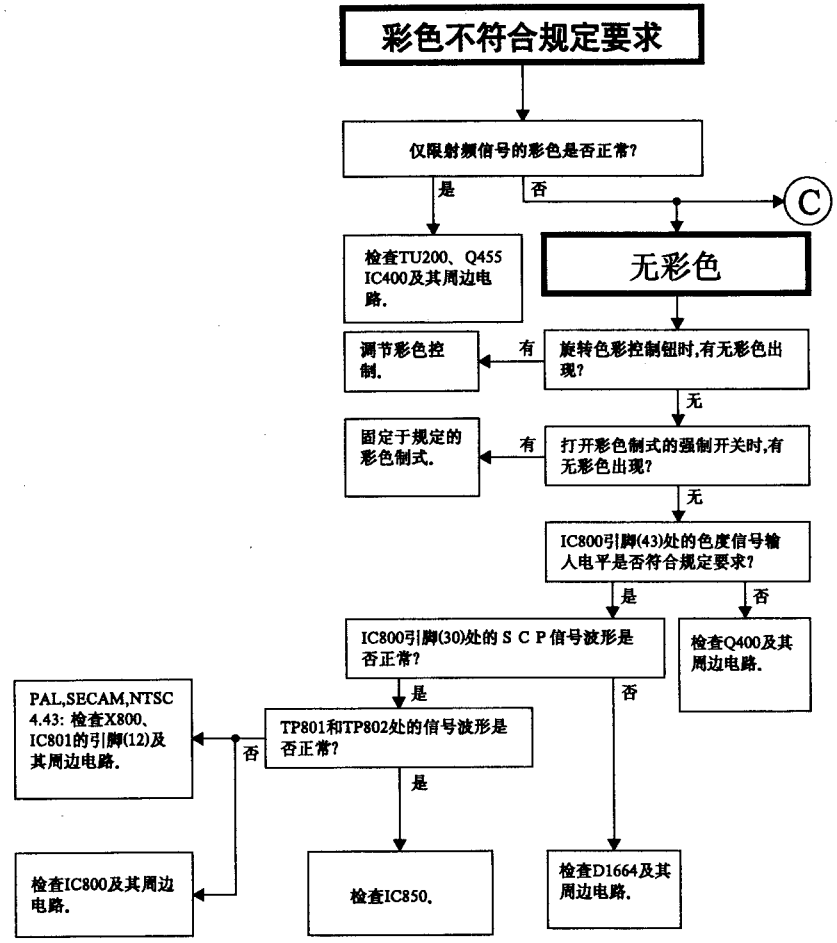

## 故障检修流程图（接上页）



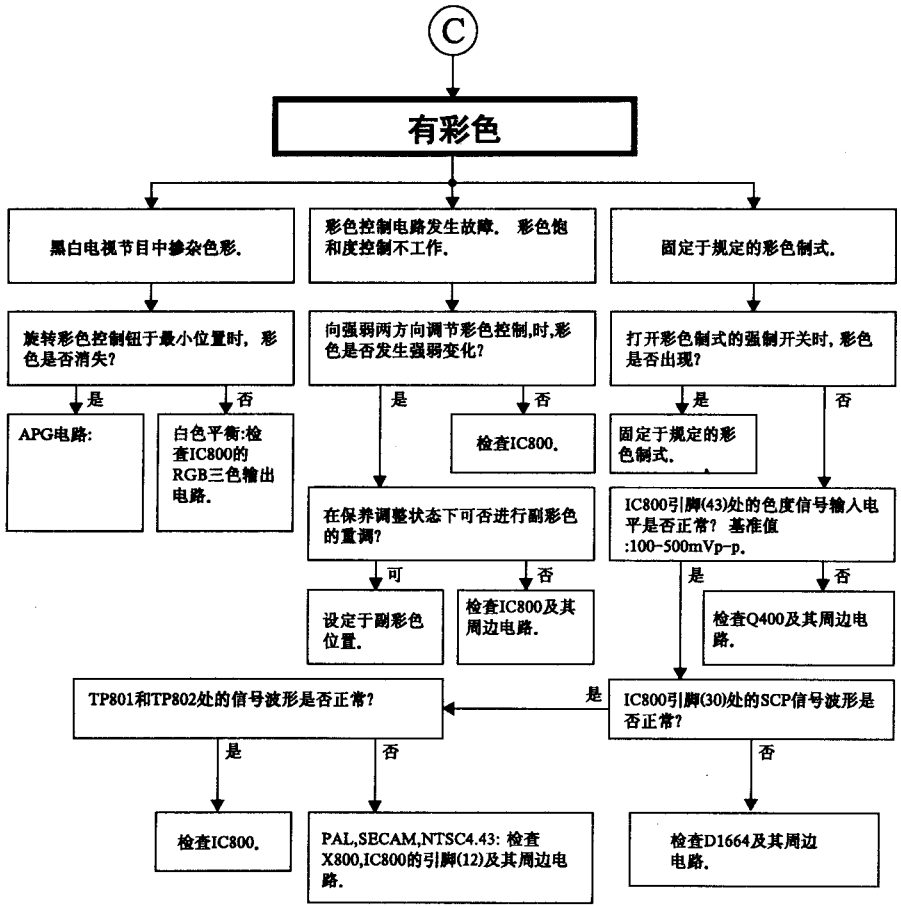
## 故障检修流程图（接上页）




## 故障检修流程图（接上页）

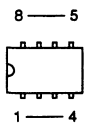


# 故障检修流程图（接上页）

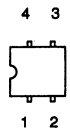

C
有彩色
黑白电视节目中掺杂色彩.
彩色控制电路发生故障. 彩色饱和度控制不工作.
固定于规定的彩色制式.
旋转彩色控制钮于最小位置时, 彩色是否消失?
向强弱两方向调节彩色控制,时,彩色是否发生强弱变化?
打开彩色制式的强制开关时, 彩色是否出现?
是
否
是
否
是
否
APG电路:
白色平衡:检查IC800的RGB三色输出电路.
检查IC800.
固定于规定的彩色制式.
在保养调整状态下可否进行副彩色的重调?
IC800引脚(43)处的色度信号输入电平是否正常? 基准值:100-500mVp-p.
可
否
是
否
设定于副彩色位置.
检查IC800及其周边电路.
检查Q400及其周边电路.
TP801和TP802处的信号波形是否正常?
是
IC800引脚(30)处的SCP信号波形是否正常?
是
否
否
检查IC800.
PAL,SECAM,NTSC4.43: 检查X800,IC800的引脚(12)及其周边电路.
检查D1664及其周边电路.

# SOLID STATE DEVICE BASE DIAGRAM
# 固体器件基座图

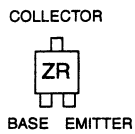
## TOP VIEW 俯视图



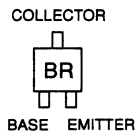

M24C08W



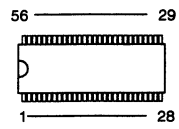

FX0008GE



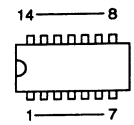

D601A



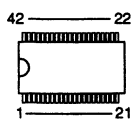

B709A




iX3394CEN2
iX3395CEN2




TDA16846

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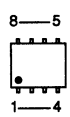


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iiR9358//-1
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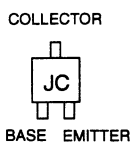
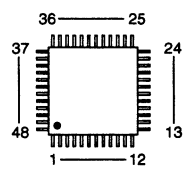
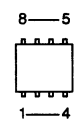


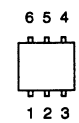

2SC2735



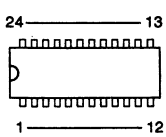

CXA2089Q



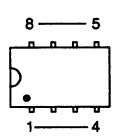

iR9358



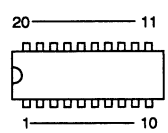

VSiMZ1A



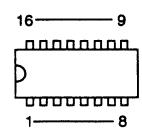

AN5891K




MiP0253

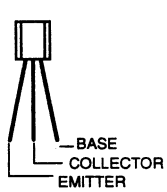



TDA9808T

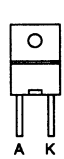



TDA9181T-1

## SIDE VIEW 侧视图

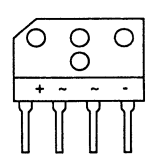



2SC3198-Y
2SC3198-G
2SC1959-Y

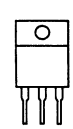



DX0452CE

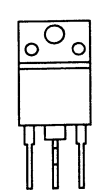
2SK583



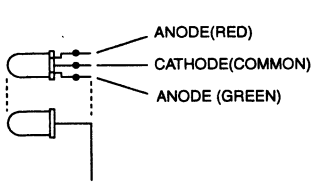

DX0366CE



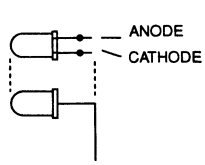
SE120N



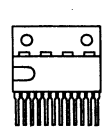
2SD2581



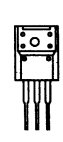

PX0414CE



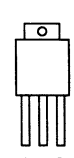

PX0274CE



AN5277

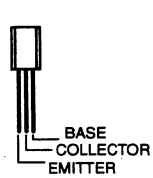



KA7809
KA7805

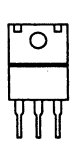



SPP11N60C

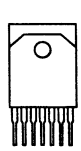
2SA1266-Y



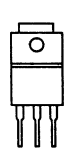

2SC3207



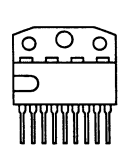
2SD1830



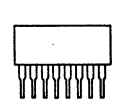

TA8427



VS2SC5248
VS2SA1964

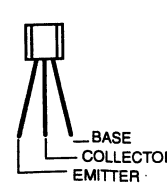



TDA6103Q



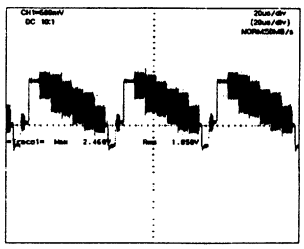

M51497L

iX0037

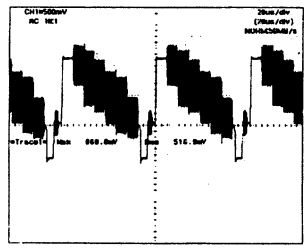



KiA78S09P

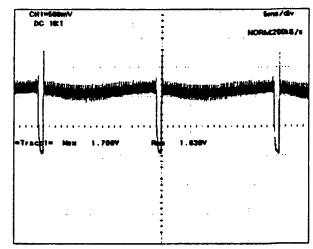
# WAVEFORMS
## 波形图



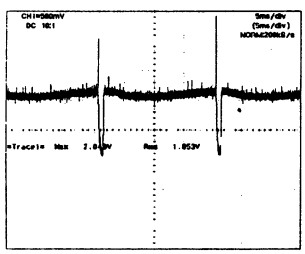
Pin 1 Vp-p=2.46v



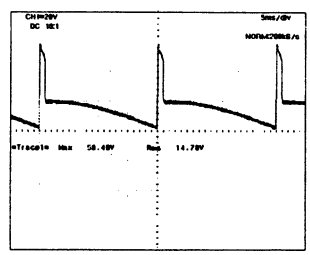
Pin 2 Vp-p=1.8v



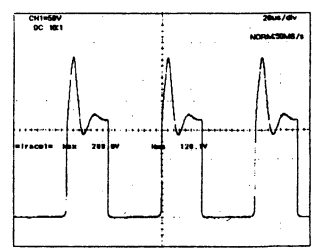
Pin 3 Vp-p=1.7v



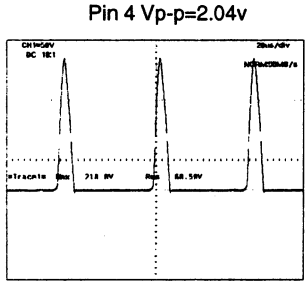
Pin 4 Vp-p=2.04v



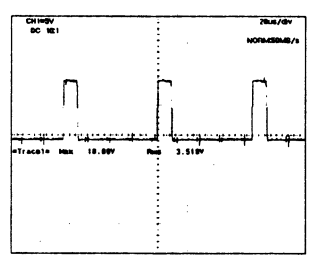
Pin 5 Vp-p=58.4v



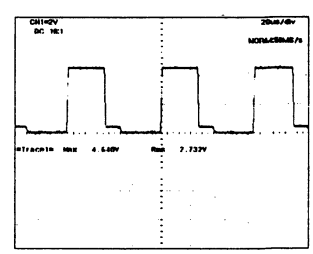
Pin 6 Vp-p=288v



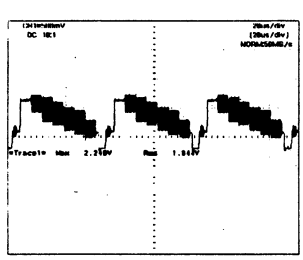
Pin 7 Vp-p=1090v



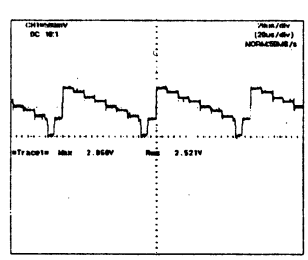
Pin 8 Vp-p=10v



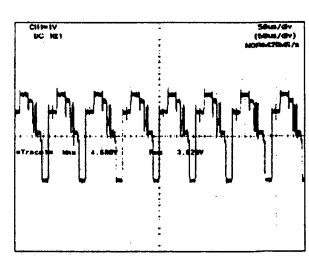
Pin 9 Vp-p=4.64v



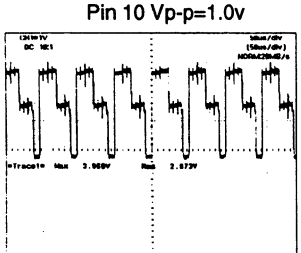
Pin 10 Vp-p=1.0v



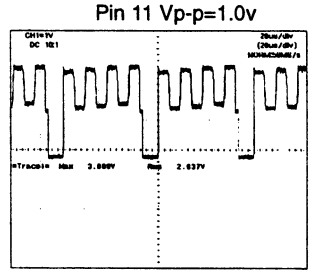
Pin 11 Vp-p=1.0v



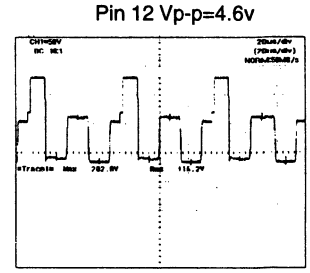
Pin 12 Vp-p=4.6v



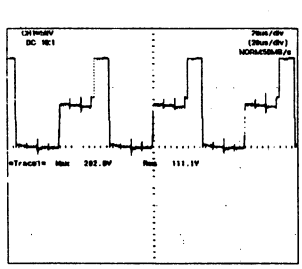
Pin 13 Vp-p=3.96v



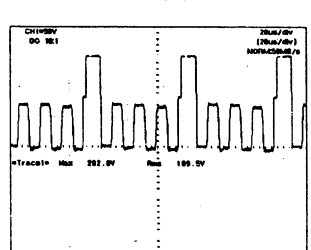
Pin 14 Vp-p=3.88v



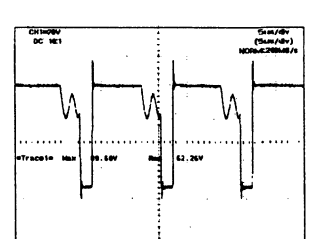
Pin 15 Vp-p=150.0v



Pin 16 Vp-p=150.0v

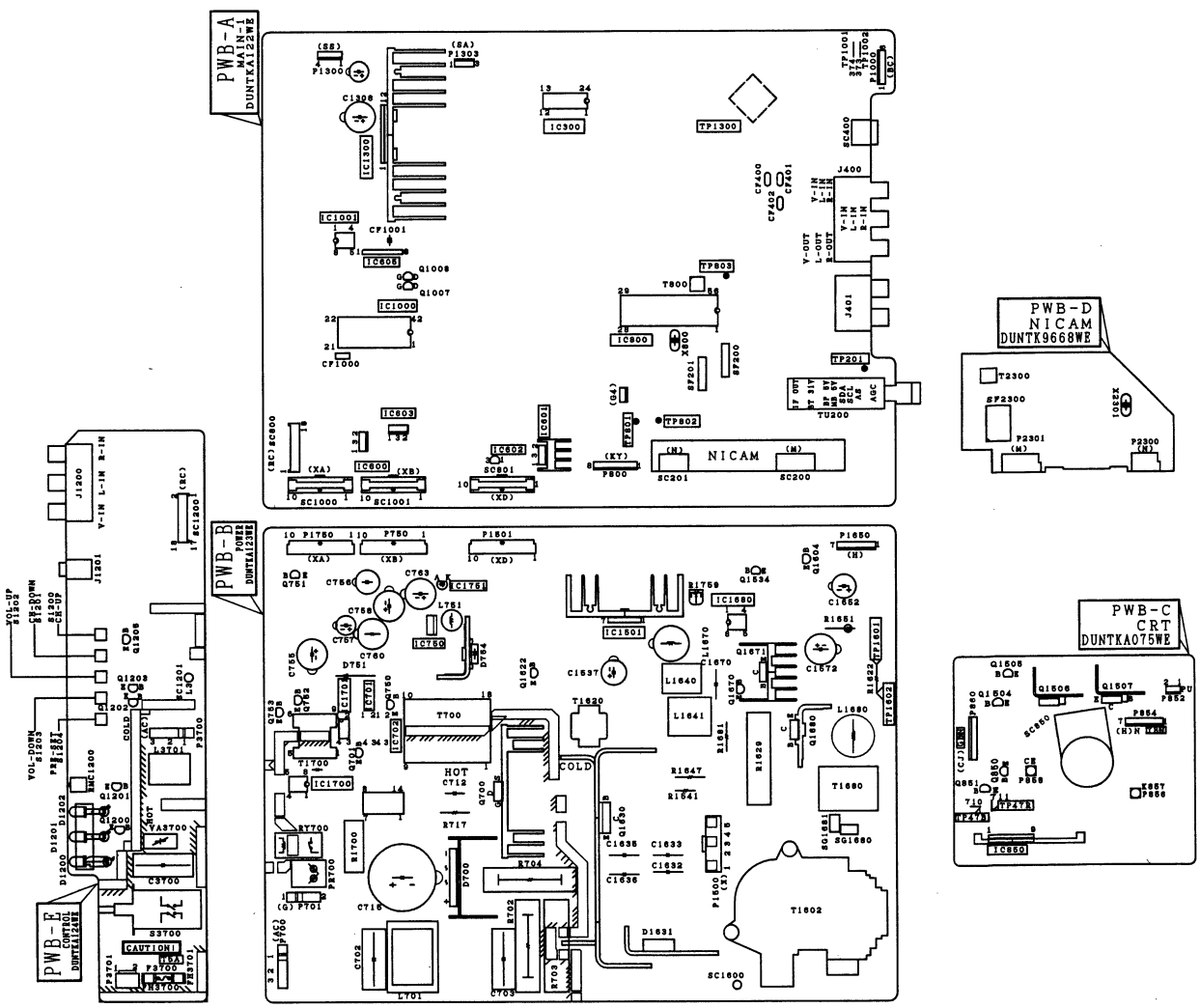


Pin 17 Vp-p=150.0v

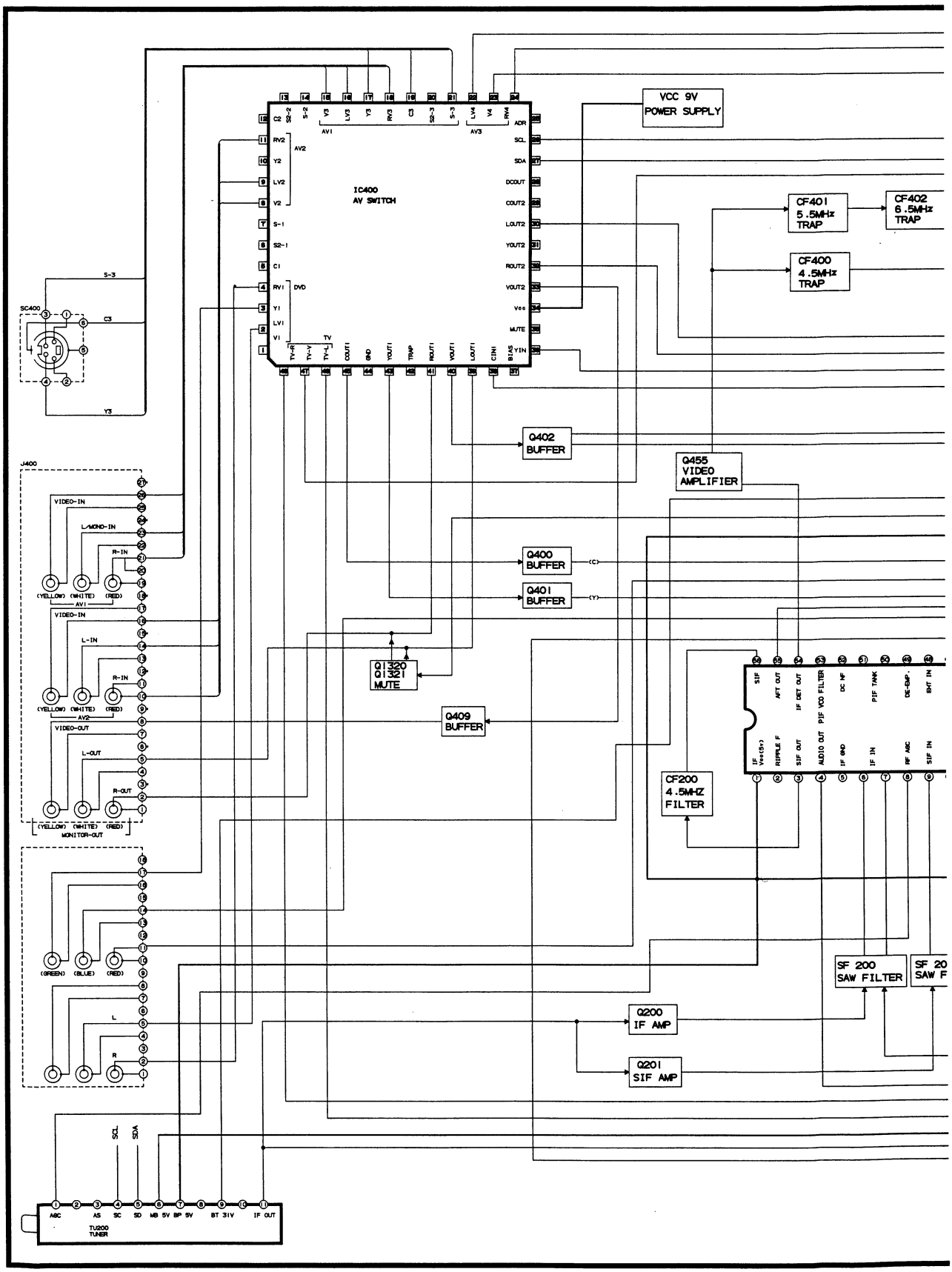


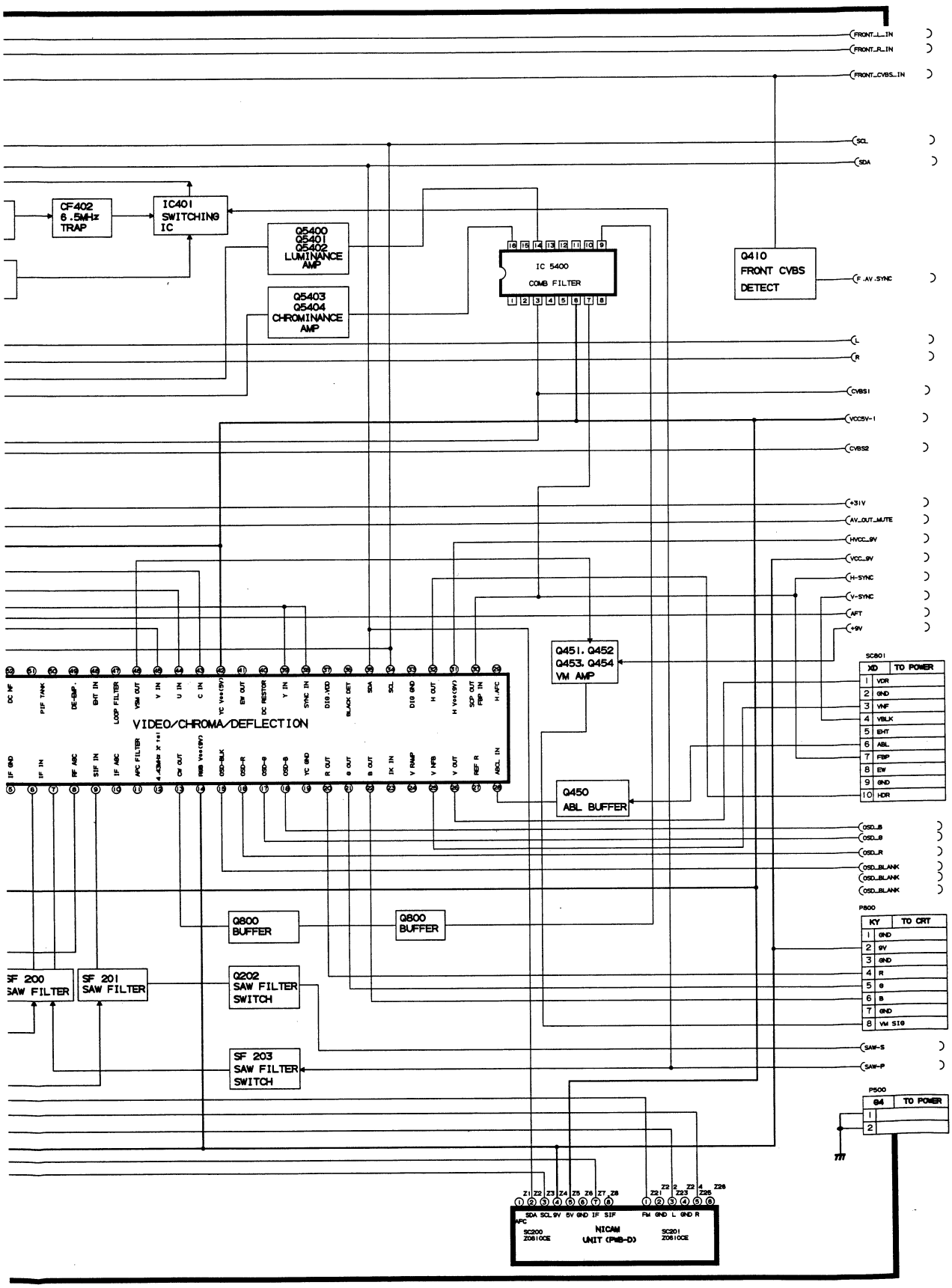
Pin 18 Vp-p=448.0v

# CHASSIS LAYOUT 机芯底盘电路布置



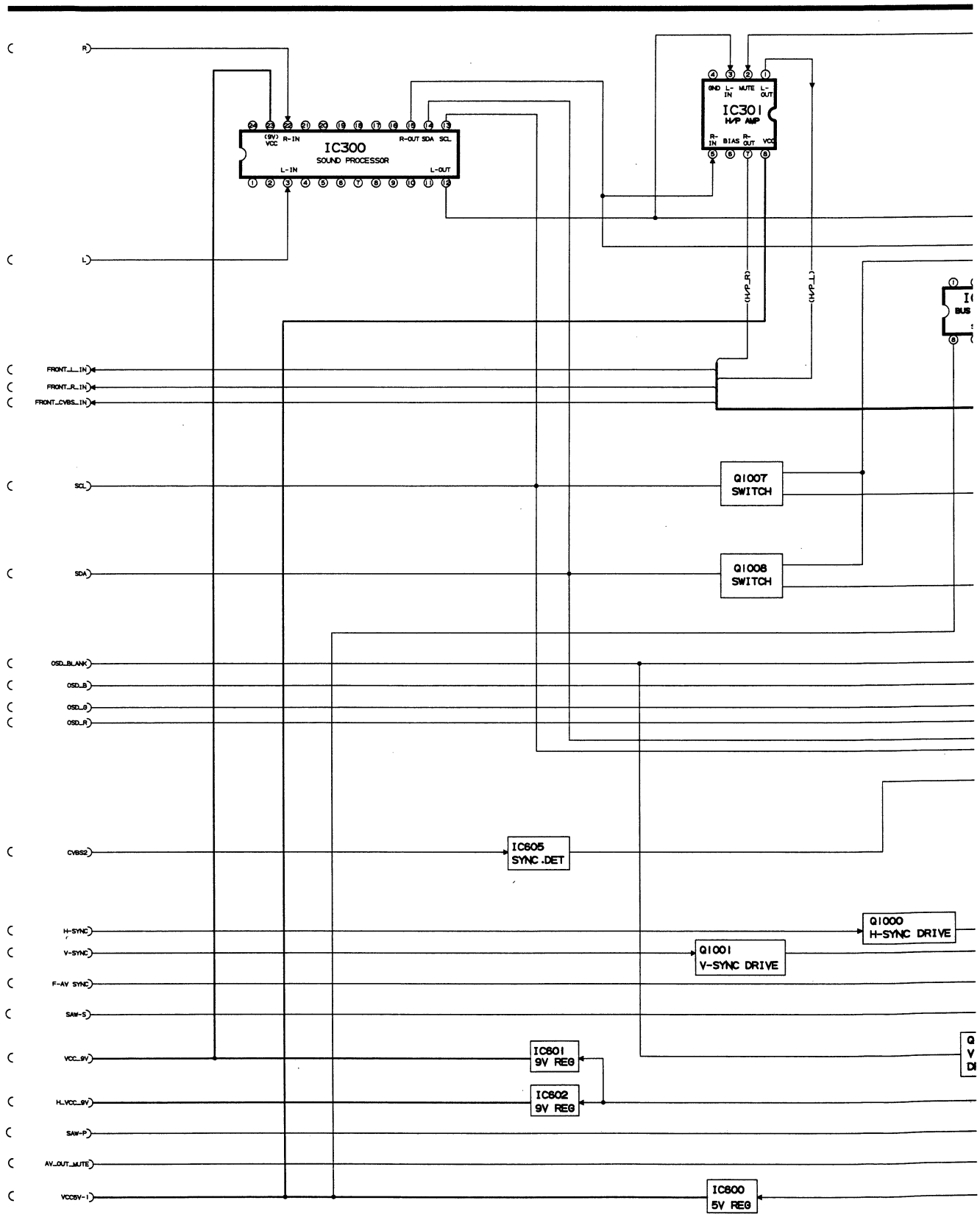
# BLOCK DIAGRAMS : MAIN1 BLOCK DIAGRAM
## 电路方框图：主电路装置-1

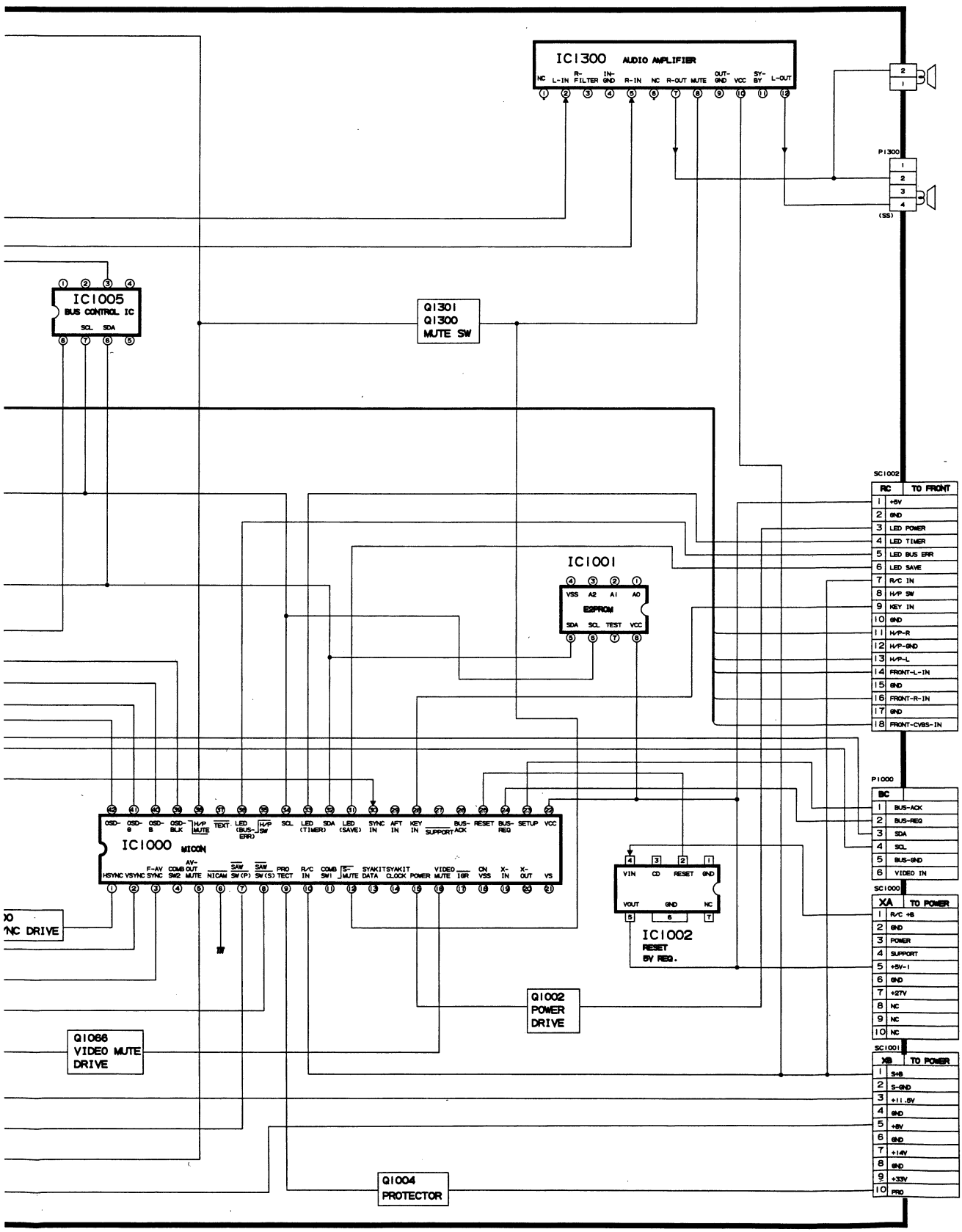



CF402
6.5MHz
TRAP
IC401
SWITCHING
IC
Q5400
Q5401
Q5402
LUMINANCE
AMP
Q5403
Q5404
CHROMINANCE
AMP
IC 5400
COMB FILTER
Q410
FRONT CVBS
DETECT
FRONT_L_IN
FRONT_R_IN
FRONT_CVBS_IN
SCL
SDA
F.AV.SYNC
L
R
CVBS1
VCC5V-1
CVBS2
+31V
AV_OUT_MUTE
HVCC_9V
VCC_9V
H-SYNC
V-SYNC
AFT
+9V
VIDEO/CHROMA/DEFLECTION
Q451. Q452
Q453. Q454
VM AMP
Q450
ABL BUFFER
SC801
XD
TO POWER
VDR
GND
VNF
VBLK
EHT
ABL
FBP
EW
GND
HDR
OSD_B
OSD_G
OSD_R
OSD_BLANK
OSD_BLANK
OSD_BLANK
P800
KY
TO CRT
GND
9V
GND
R
G
B
GND
VM SIG
Q800
BUFFER
Q800
BUFFER
SF 200
SAW FILTER
SF 201
SAW FILTER
Q202
SAW FILTER
SWITCH
SF 203
SAW FILTER
SWITCH
SAW-S
SAW-P
P500
G4
TO POWER
SDA SCL 9V 5V GND IF SIF
APC
FM GND L GND R
SC200
Z0610CE
NICAM
UNIT (PNB-D)
SC201
Z0610CE

# MAIN2 BLOCK DIAGRAM(29B-FX8)

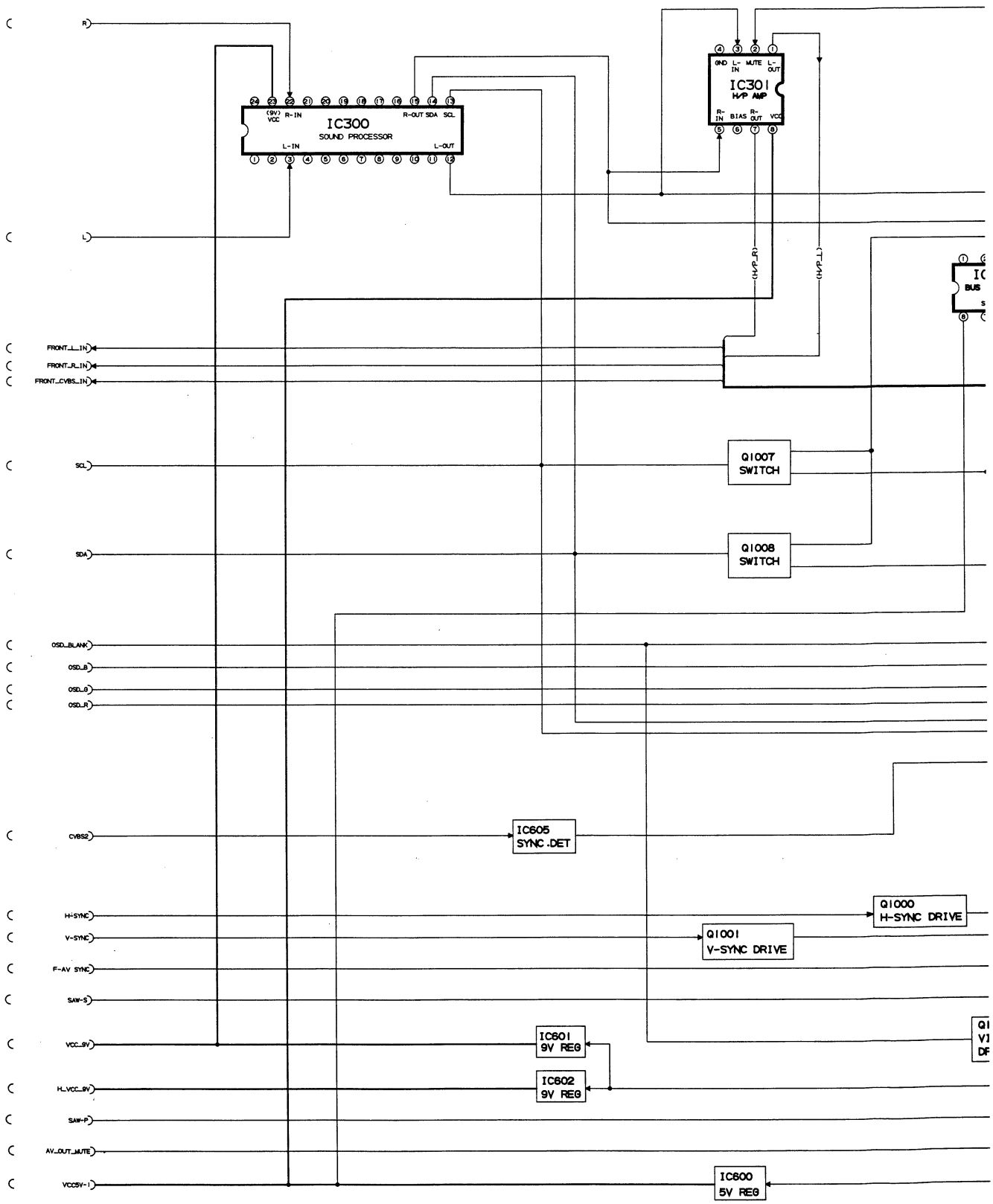
## 电路方框图：主电路装置-2(29B-FX8)

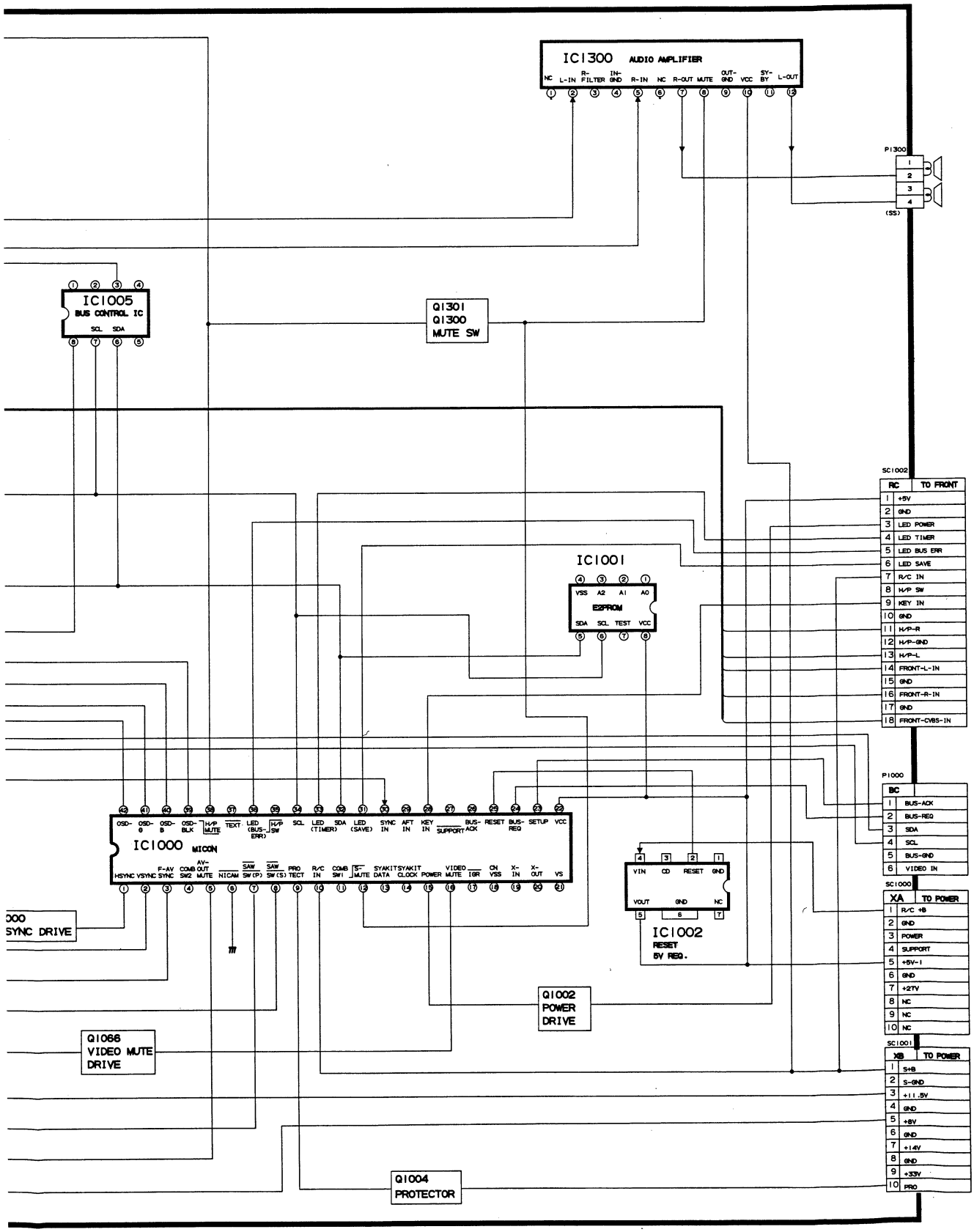



IC1300 AUDIO AMPLIFIER
NC L-IN R-FILTER IN-GND R-IN NC R-OUT MUTE OUT-GND VCC SY-BY L-OUT
P1300
(SS)
IC1005
BUS CONTROL IC
SCL SDA
Q1301
Q1300
MUTE SW
IC1001
E2PROM
VSS A2 A1 A0
SDA SCL TEST VCC
IC1000 MICON
OSD-R OSD-G OSD-B OSD-BLK H/P MUTE TEXT LED (BUS-ERR) H/P SW SCL LED (TIMER) SDA LED (SAVE) SYNC IN AFT IN KEY IN SUPPORT BUS-ACK RESET BUS-REQ SETUP VCC
HSYNC VSYNC F-AV SYNC AV-OUT COMB SW2 MUTE NICAM SAW SW(P) SAW SW(S) PRO TECT R/C IN COMB SW1 S-MUTE SYAKIT DATA SYAKIT CLOCK POWER VIDEO MUTE IGR ON VSS X-IN X-OUT VS
IC1002
RESET
5V REG.
VIN CD RESET GND
VOUT GND NC
Q1002
POWER
DRIVE
Q1066
VIDEO MUTE
DRIVE
Q1004
PROTECTOR
SC1002
RC TO FRONT
1 +5V
2 GND
3 LED POWER
4 LED TIMER
5 LED BUS ERR
6 LED SAVE
7 R/C IN
8 H/P SW
9 KEY IN
10 GND
11 H/P-R
12 H/P-GND
13 H/P-L
14 FRONT-L-IN
15 GND
16 FRONT-R-IN
17 GND
18 FRONT-CVBS-IN
P1000
BC
1 BUS-ACK
2 BUS-REQ
3 SDA
4 SCL
5 BUS-GND
6 VIDEO IN
SC1000
XA TO POWER
1 R/C +B
2 GND
3 POWER
4 SUPPORT
5 +5V-1
6 GND
7 +27V
8 NC
9 NC
10 NC
SC1001
XB TO POWER
1 S+B
2 S-GND
3 +11.5V
4 GND
5 +8V
6 GND
7 +14V
8 GND
9 +33V
10 PRO

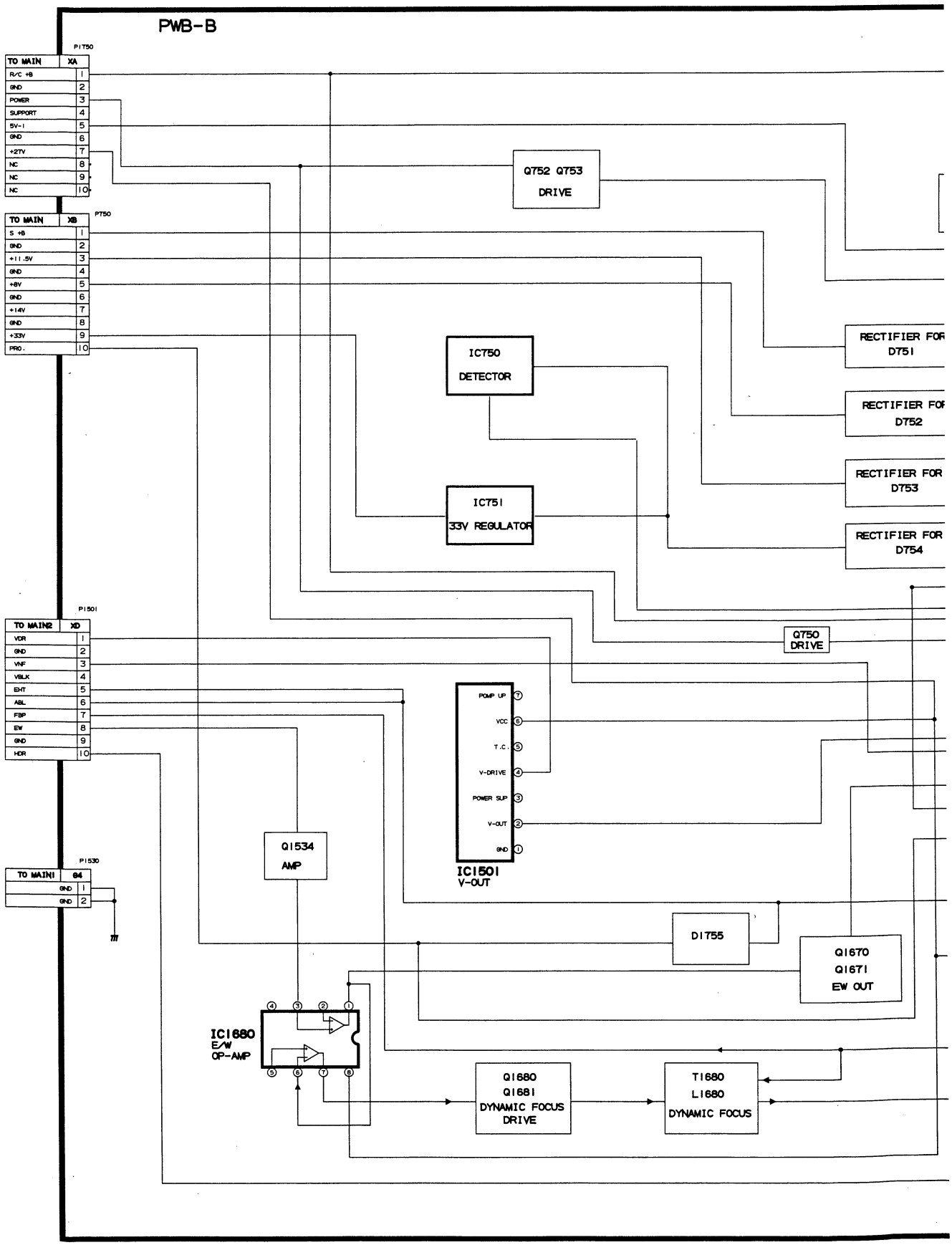
# MAIN2 BLOCK DIAGRAM(29B-FG8)

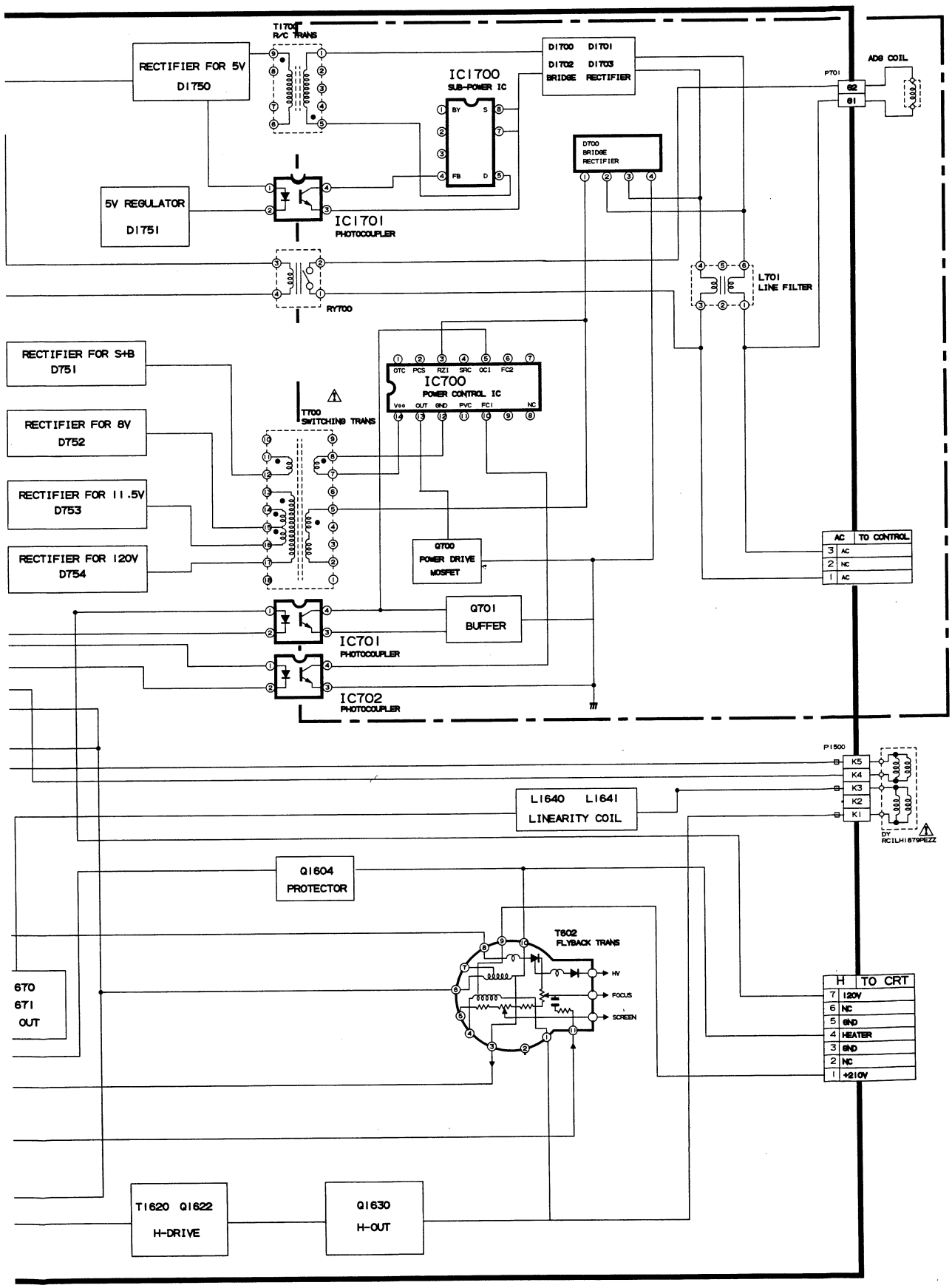
## 电路方框图：主电路装置-2(29B-FG8)



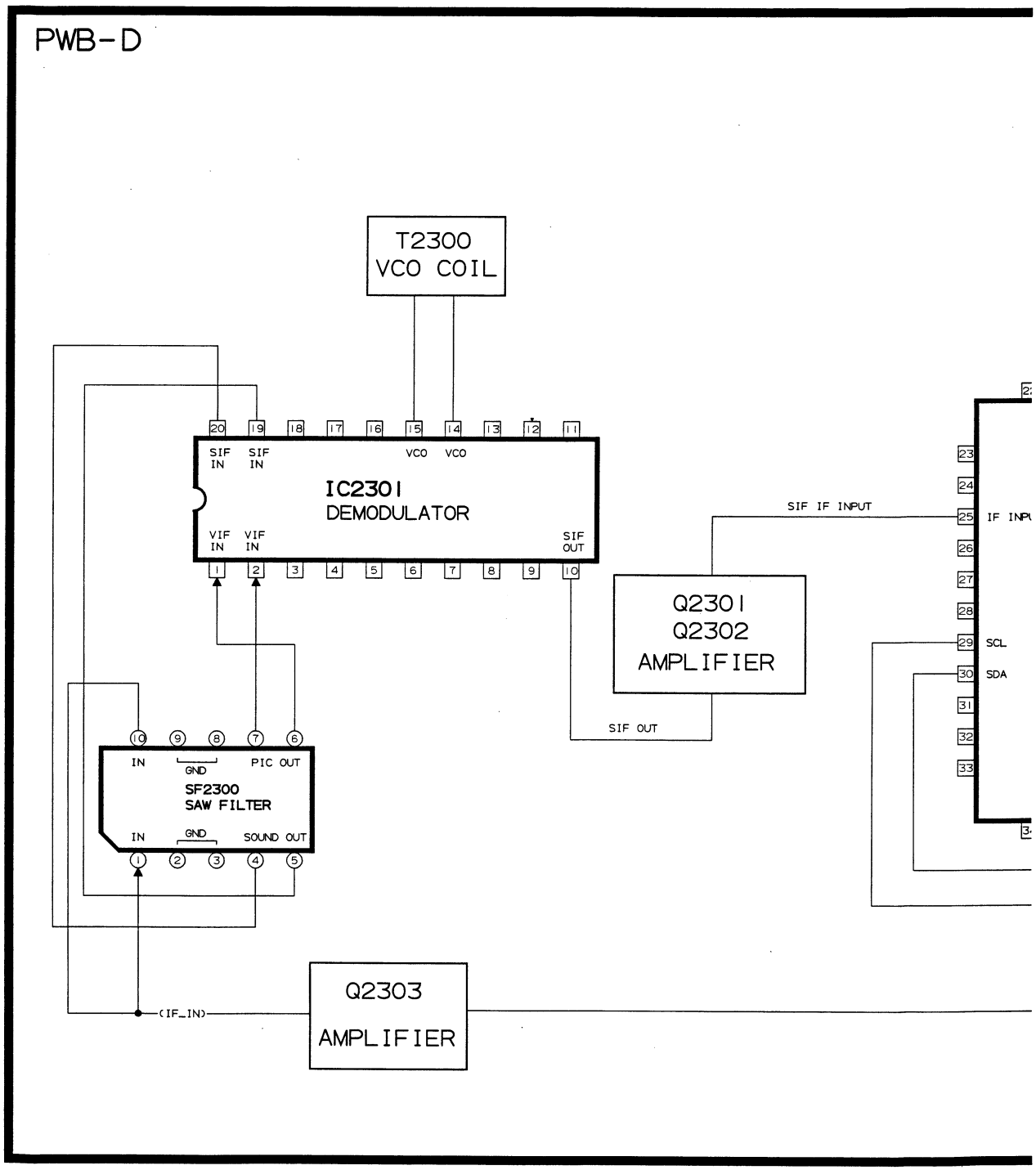

IC1300 AUDIO AMPLIFIER
NC L-IN R-FILTER IN-GND R-IN NC R-OUT MUTE OUT-GND VCC SY-BY L-OUT
P1300
(SS)
IC1005
BUS CONTROL IC
SCL SDA
Q1301
Q1300
MUTE SW
IC1001
E2PROM
VSS A2 A1 A0
SDA SCL TEST VCC
SC1002
RC TO FRONT
1 +5V
2 GND
3 LED POWER
4 LED TIMER
5 LED BUS ERR
6 LED SAVE
7 R/C IN
8 H/P SW
9 KEY IN
10 GND
11 H/P-R
12 H/P-GND
13 H/P-L
14 FRONT-L-IN
15 GND
16 FRONT-R-IN
17 GND
18 FRONT-CVBS-IN
P1000
BC
1 BUS-ACK
2 BUS-REQ
3 SDA
4 SCL
5 BUS-GND
6 VIDEO IN
IC1000 MICON
OSD-R OSD-G OSD-B OSD-BLK H/P MUTE TEXT LED (BUS-ERR) H/P SW SCL LED (TIMER) SDA LED (SAVE) SYNC IN AFT IN KEY IN SUPPORT BUS-ACK RESET BUS-REQ SETUP VCC
HSYNC VSYNC F-AV SYNC COMB SW2 AV-OUT MUTE NICAM SAW SW(P) SAW SW(S) PRO TECT R/C IN COMB SW1 S-MUTE SYAKIT DATA SYAKIT CLOCK POWER VIDEO MUTE IGR CN VSS X-IN X-OUT VS
IC1002
RESET
5V REG.
VIN CD RESET GND
VOUT GND NC
SC1000
XA TO POWER
1 R/C +B
2 GND
3 POWER
4 SUPPORT
5 +5V-1
6 GND
7 +27V
8 NC
9 NC
10 NC
SC1001
XB TO POWER
1 S+B
2 S-GND
3 +11.5V
4 GND
5 +8V
6 GND
7 +14V
8 GND
9 +33V
10 PRO
SYNC DRIVE
Q1002
POWER
DRIVE
Q1086
VIDEO MUTE
DRIVE
Q1004
PROTECTOR

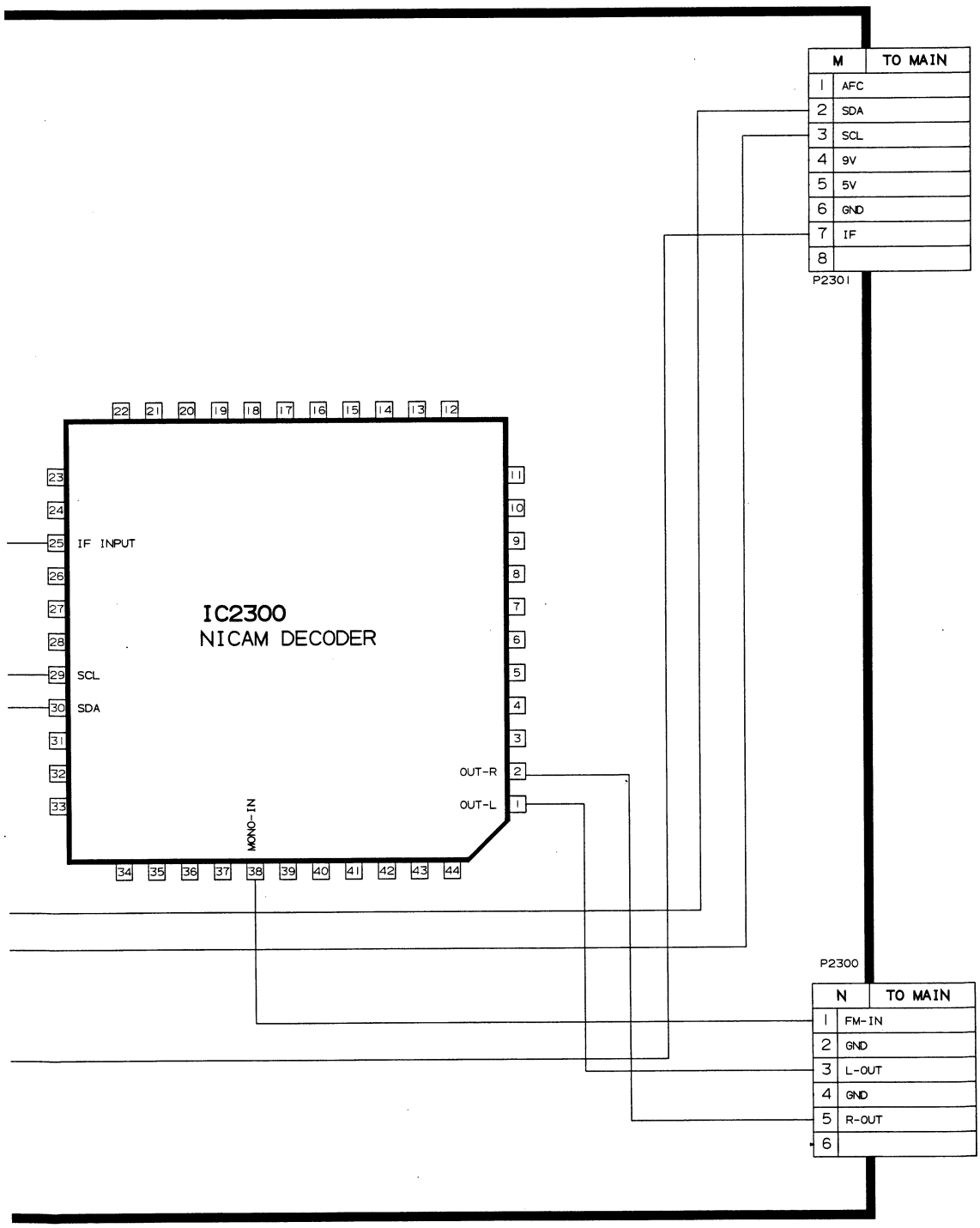
# POWER BLOCK DIAGRAM
## 电路方框图：电源装置



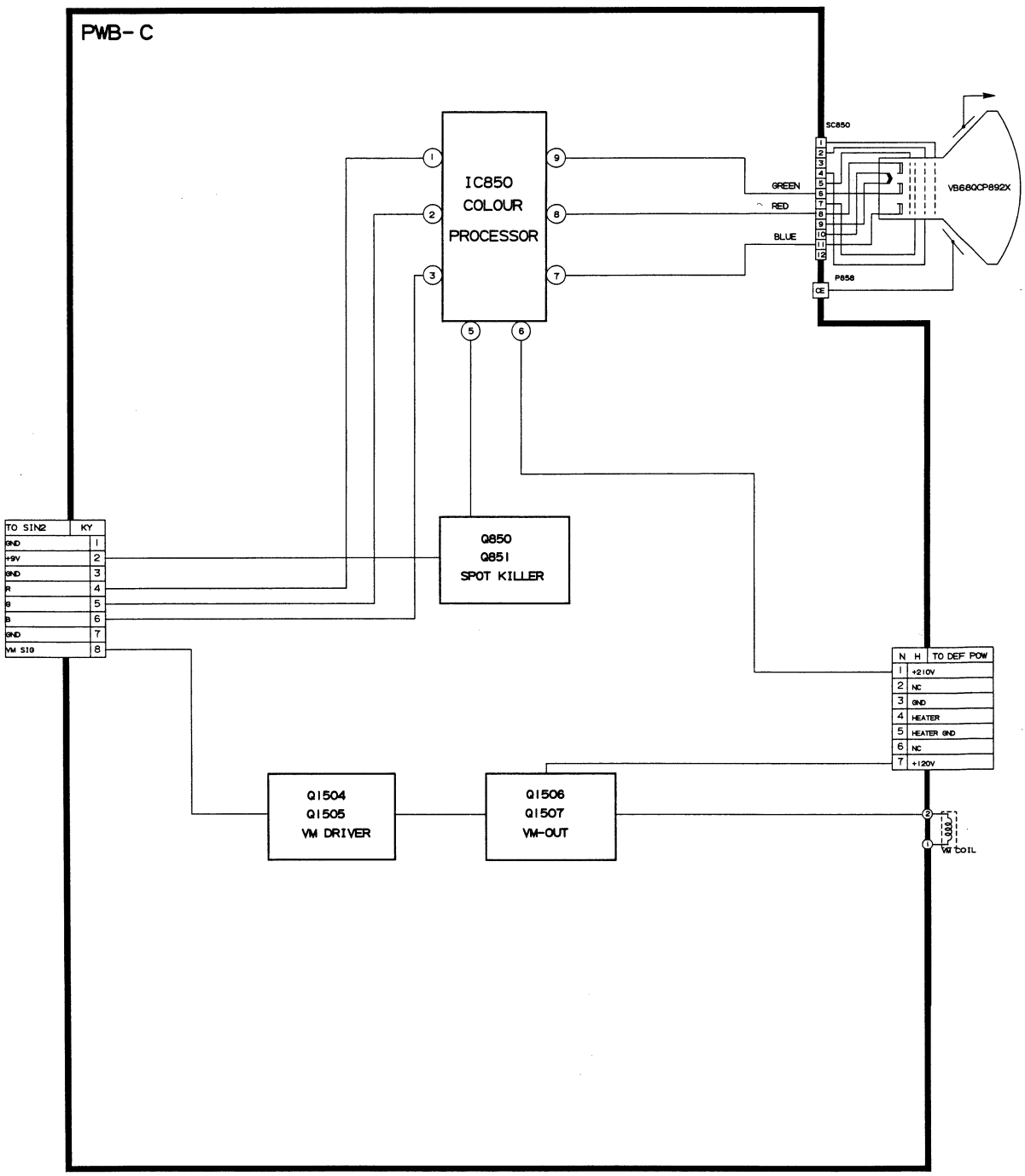

RECTIFIER FOR 5V
D1750
T1700
R/C TRANS
IC1700
SUB-POWER IC
D1700 D1701
D1702 D1703
BRIDGE RECTIFIER
ADJ COIL
P701
G2
G1
D700
BRIDGE
RECTIFIER
5V REGULATOR
D1751
IC1701
PHOTOCOUPLER
RY700
L701
LINE FILTER
RECTIFIER FOR S+B
D751
RECTIFIER FOR 8V
D752
RECTIFIER FOR 11.5V
D753
RECTIFIER FOR 120V
D754
T700
SWITCHING TRANS
IC700
POWER CONTROL IC
Q700
POWER DRIVE
MOSFET
AC
TO CONTROL
Q701
BUFFER
IC701
PHOTOCOUPLER
IC702
PHOTOCOUPLER
P1500
K5
K4
K3
K2
K1
L1640 L1641
LINEARITY COIL
Q1604
PROTECTOR
T802
FLYBACK TRANS
HV
FOCUS
SCREEN
H
TO CRT
120V
NC
GND
HEATER
GND
NC
+210V
670
671
OUT
T1620 Q1622
H-DRIVE
Q1630
H-OUT

# NICAM BLOCK DIAGRAM
## 电路方框图：NICAM装置

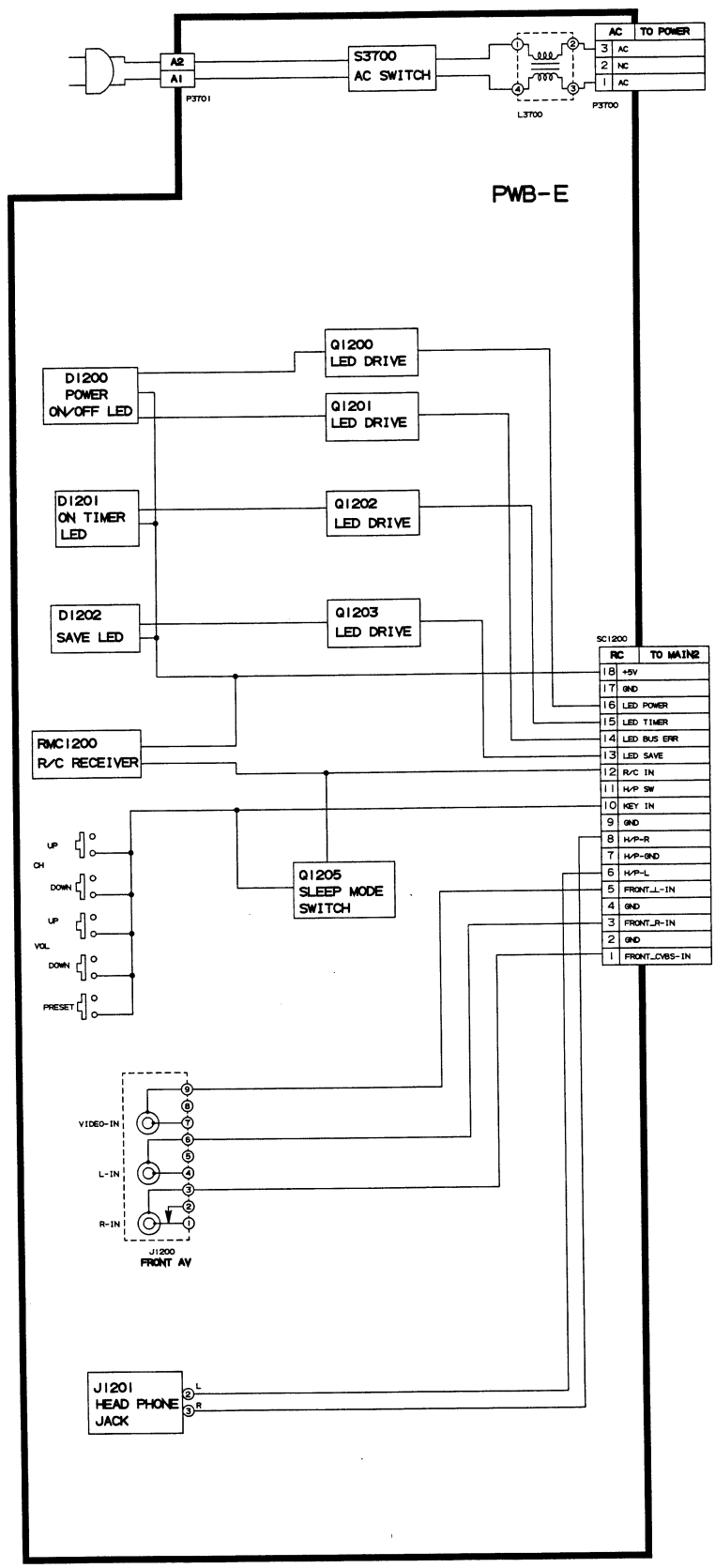



M
TO MAIN
1 AFC
2 SDA
3 SCL
4 9V
5 5V
6 GND
7 IF
8
P2301
IC2300
NICAM DECODER
IF INPUT
SCL
SDA
OUT-R
OUT-L
MONO-IN
P2300
N
TO MAIN
1 FM-IN
2 GND
3 L-OUT
4 GND
5 R-OUT
6

# CRT BLOCK DIAGRAM
## 电路方框图：CRT管座装置



# FRONT BLOCK DIAGRAM
## 电路方框图： 前面装置



## - M E M O -

# DESCRIPTION OF SCHEMATIC DIAGRAM

***SAFETY NOTES:***

1. *DISCONNECT THE AC PLUG FROM THE AC OUTLET BEFORE REPLACING PARTS.*
2. *SEMICONDUCTOR HEAT SINKS SHOULD BE REGARDED AS POTENTIAL SHOCK HAZARDS WHEN THE CHASSIS IS OPERATING.*

***IMPORTANT SAFETY NOTICE:***

*PARTS MARKED WITH "⚠ " ( [redacted] ) ARE IMPOTANT FOR MAINTAINING THE SAFETY OF THE SET. BE SURE TO REPLACE THESE PARTS WITH SPECIFIED ONES FOR MAINTAINING THE SAFETY AND PERFORMANCE OF THE SET.*

***SERVICE PRECAUTION:***

*THE AREA ENCLOSED BY THIS LINE ( — · — ) IS DIRECTLY CONNECTED WITH AC MAINS VOLTAGE.*
*WHEN SERVICING THE AREA, CONNECT AN ISOLATING TRANSFORMER BETWEEN TV RECEIVER AND AC LINE TO ELIMINATE HAZARD OF ELECTRIC SHOCK.*

***NOTES:***

1. *The unit of resistance "ohm" is omitted. (K = 1000 ohms, M = Mega ohm).*
2. *All resistors are 1/16 watt, unless otherwise noted.*
3. *All capacitors are μF, unless otherwise noted. (P = μμF).*

***VOLTAGE MEASUREMENT CONDITIONS:***

1. *Voltage in parenthesis measured with no signal.*
2. *Voltages without parenthesis measured with PAL Colour-Signal.*
3. *All the voltages in each point are measured with high impedance volt-meter.*

***WAVEFORM MEASUREMENT CONDITIONS:***

1. *Colour bar generator signal of 2.5V peak to peak applied of Base at Video Buffer Amp. Q203.*
2. *Approximately 4.0V AGC bias .*

# 电路原理图的说明

**安全注意事项：**

1.在进行部件更换之前，务请拔出电源插头。
2.本装置工作时，机芯底盘的半导体散热片有触电之虑，务请注意。

**安全使用注意要点：**

标有“⚠”( [redacted] )的部件对于电视机安全的维护有至关重要的意义。为了维护本机的安全和使本机能正常工作，必须使用指定品来更换这些部件。

**维修注意:**

被 (▬ ▬ ▬ )线围起的地方直接和交流电压相连接。当对该处进行维修时，为了排除遭受电击的危险性，要在电视接收机和交流电源之间连接隔离变压器。

**电路单位说明：**

1.电阻欧姆（Ω）单位予以略记（K＝千欧姆，M＝兆欧姆）。
2.除特别说明者外，图中电阻效率的为1／16瓦特。
3.除特别说明者（P＝微微法拉）外，图中电容单位的为mF（微法拉）。

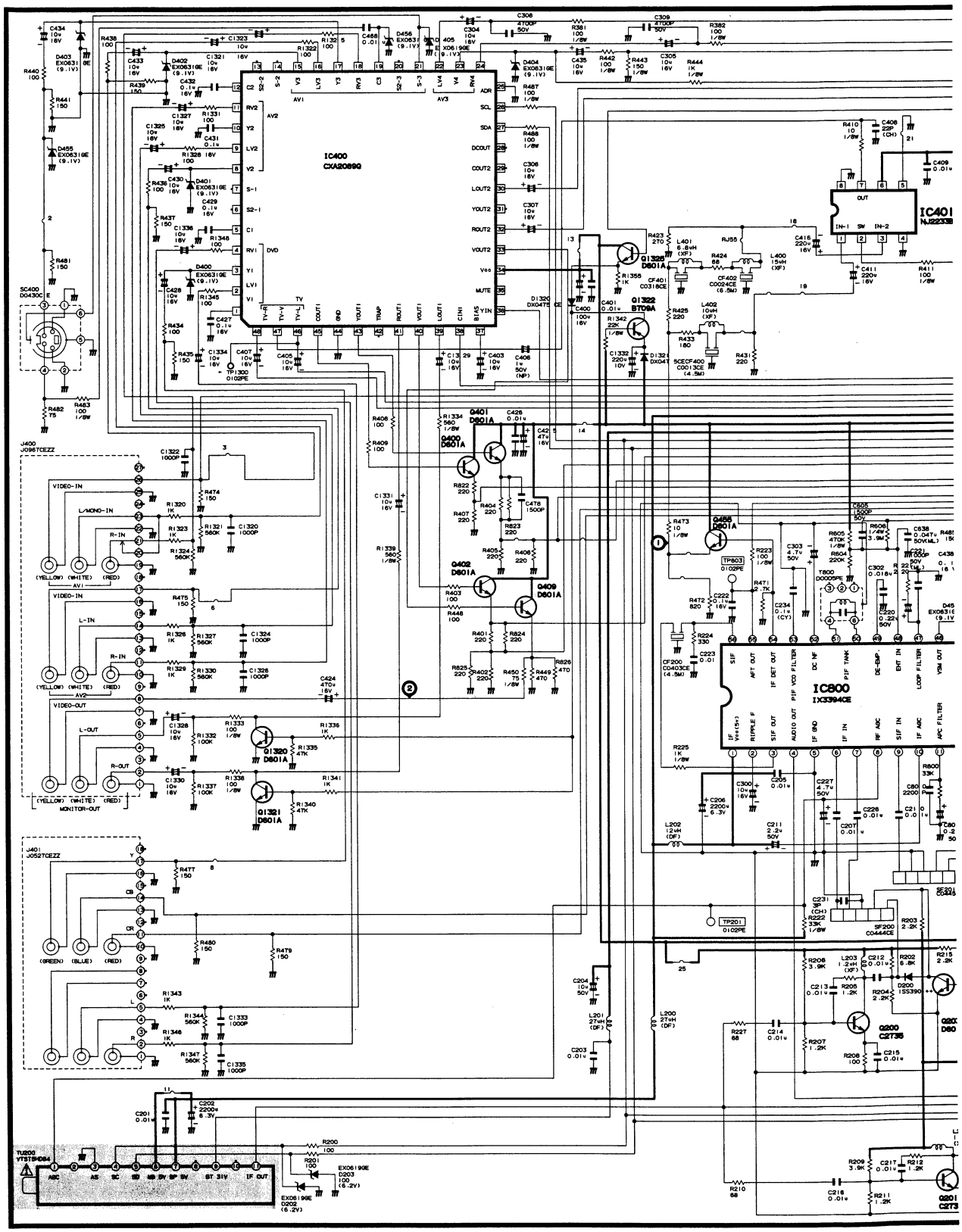
**电压测定条件**

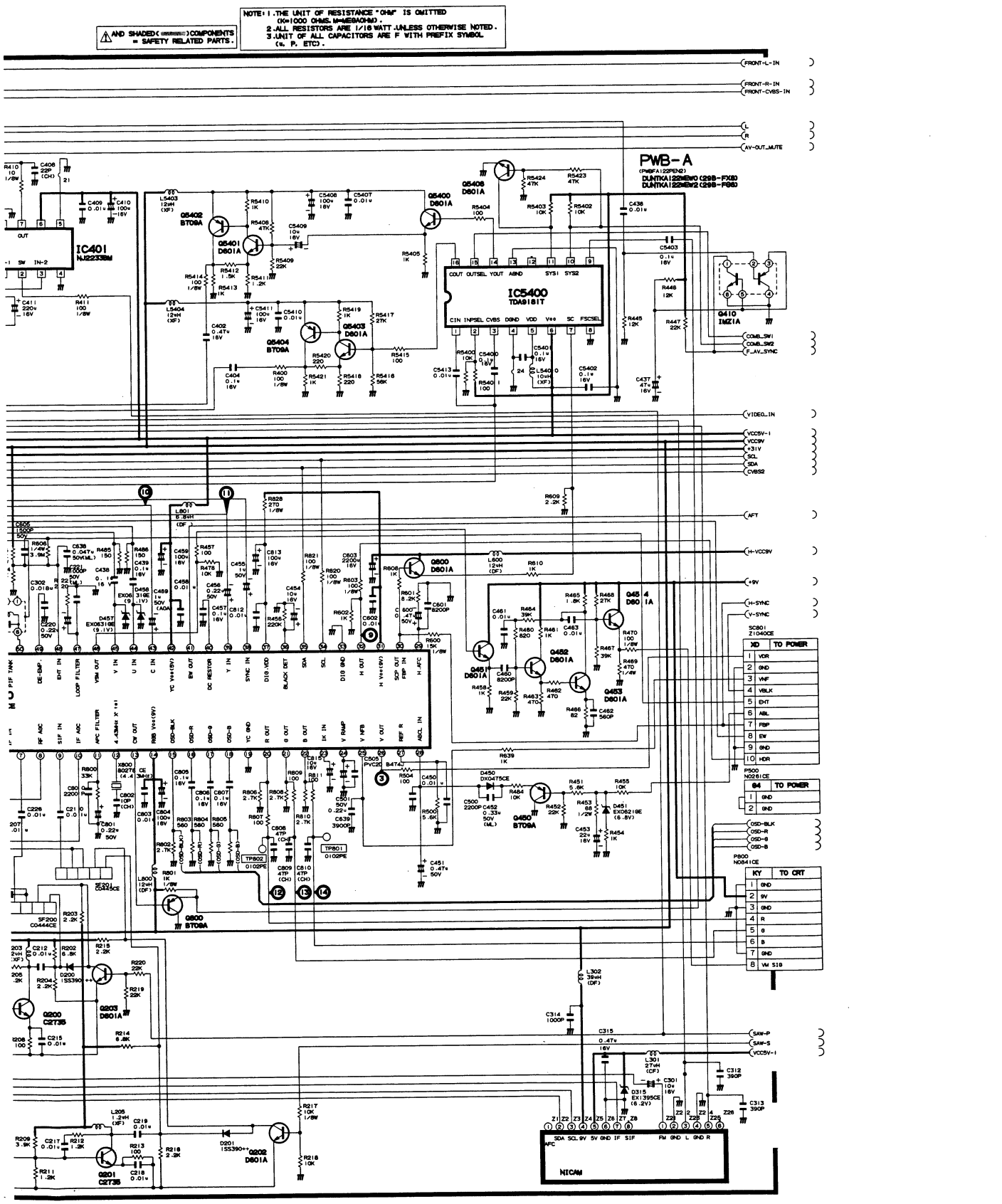
1.括号中的电压值为无信号状态下所侧。
2.括号外的电压值为PAL彩色信号状态下所侧。
3.所有侧试点的电压值的为电子管电压计VTVM所侧。

**波形测定条件：**

1.施加1.8Vp－p的彩条发生器信号于视频缓冲放大器Q203的基极。
2.自动增益控制偏压约为4.0V。

# SCHEMATIC DIAGRAM: MAIN1 UNIT
## 电路原理图：主电路装置-1

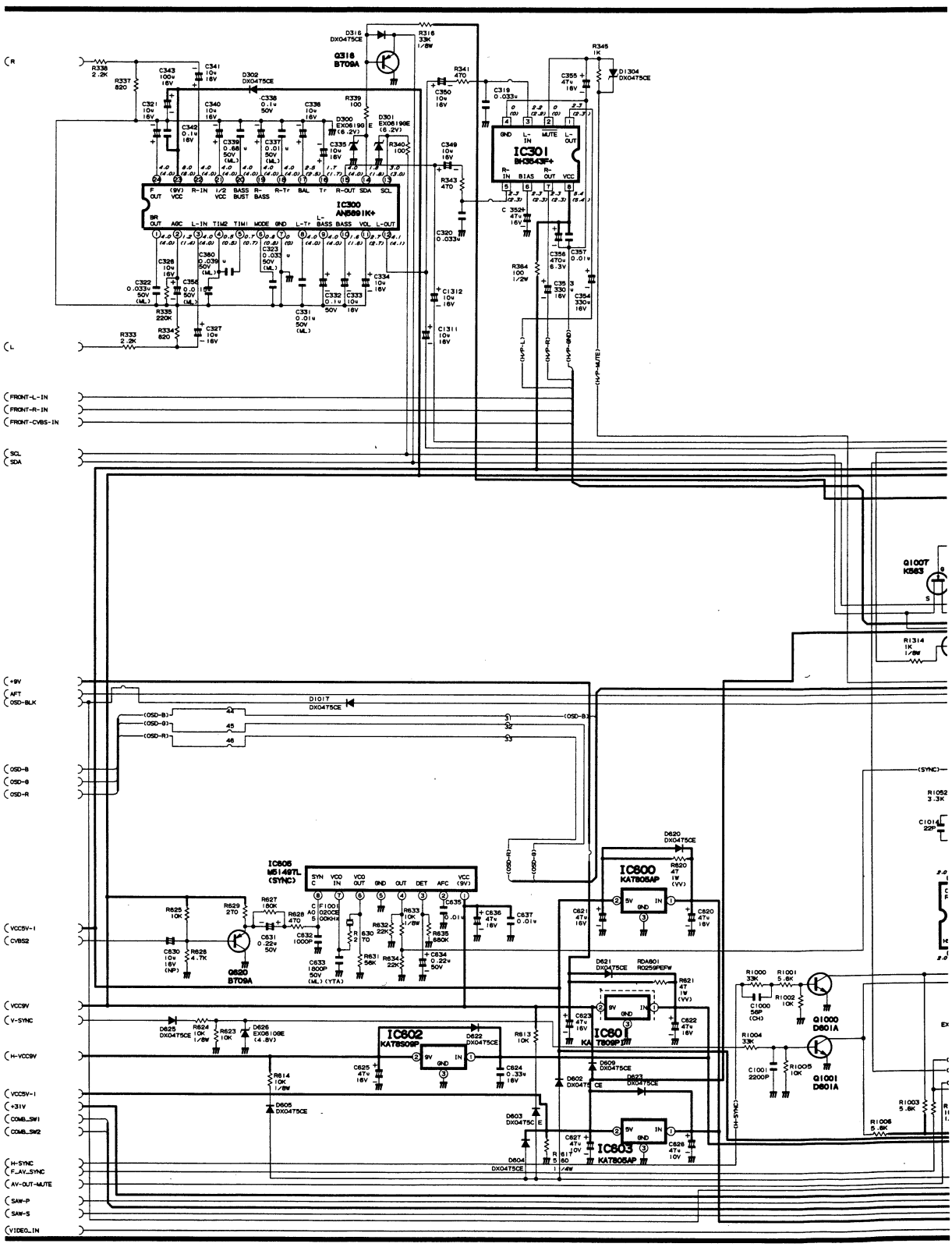


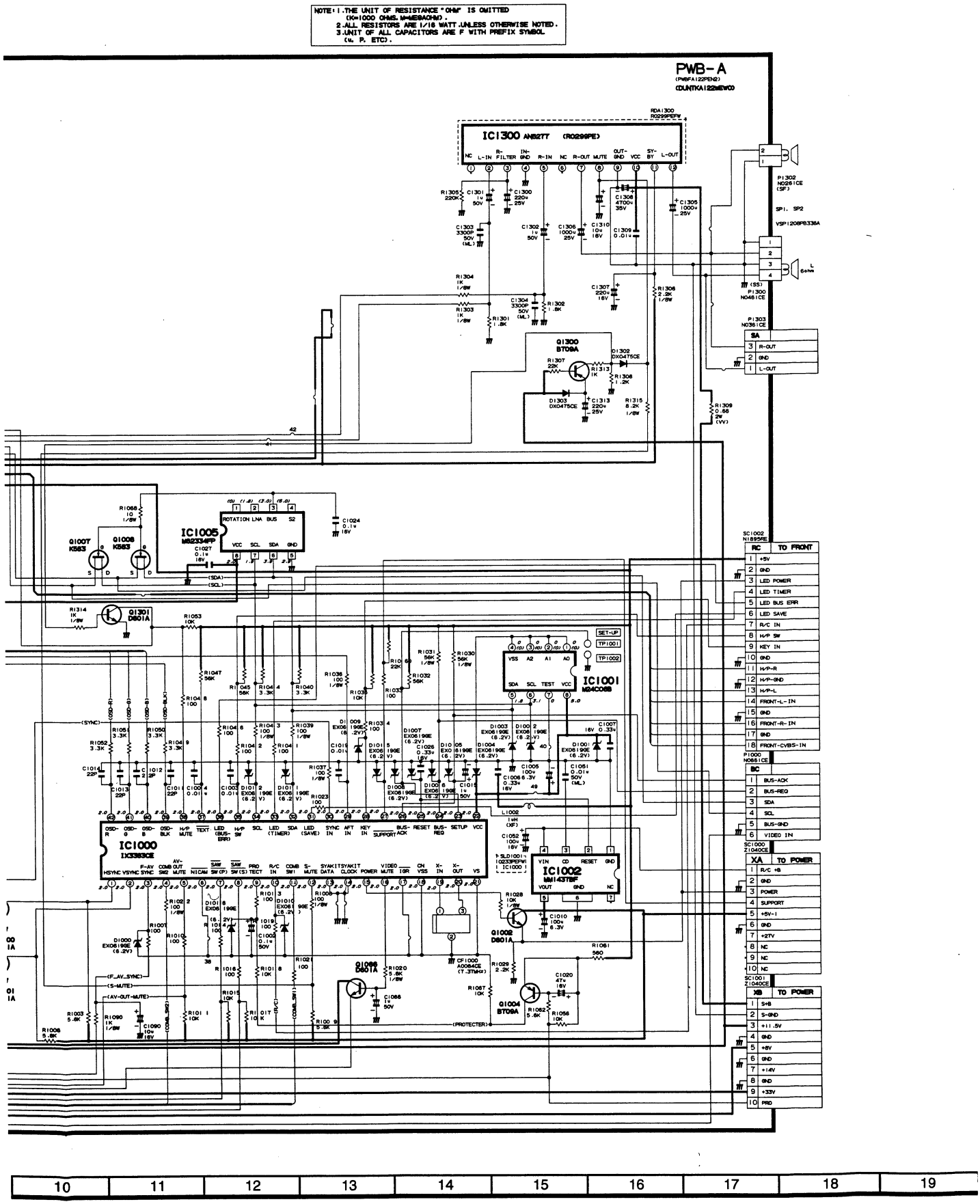



| 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 |
|---|---|---|---|---|---|---|---|---|---|

# SCHEMATIC DIAGRAM:MODEL 29B-FX8 MAIN2 UNIT

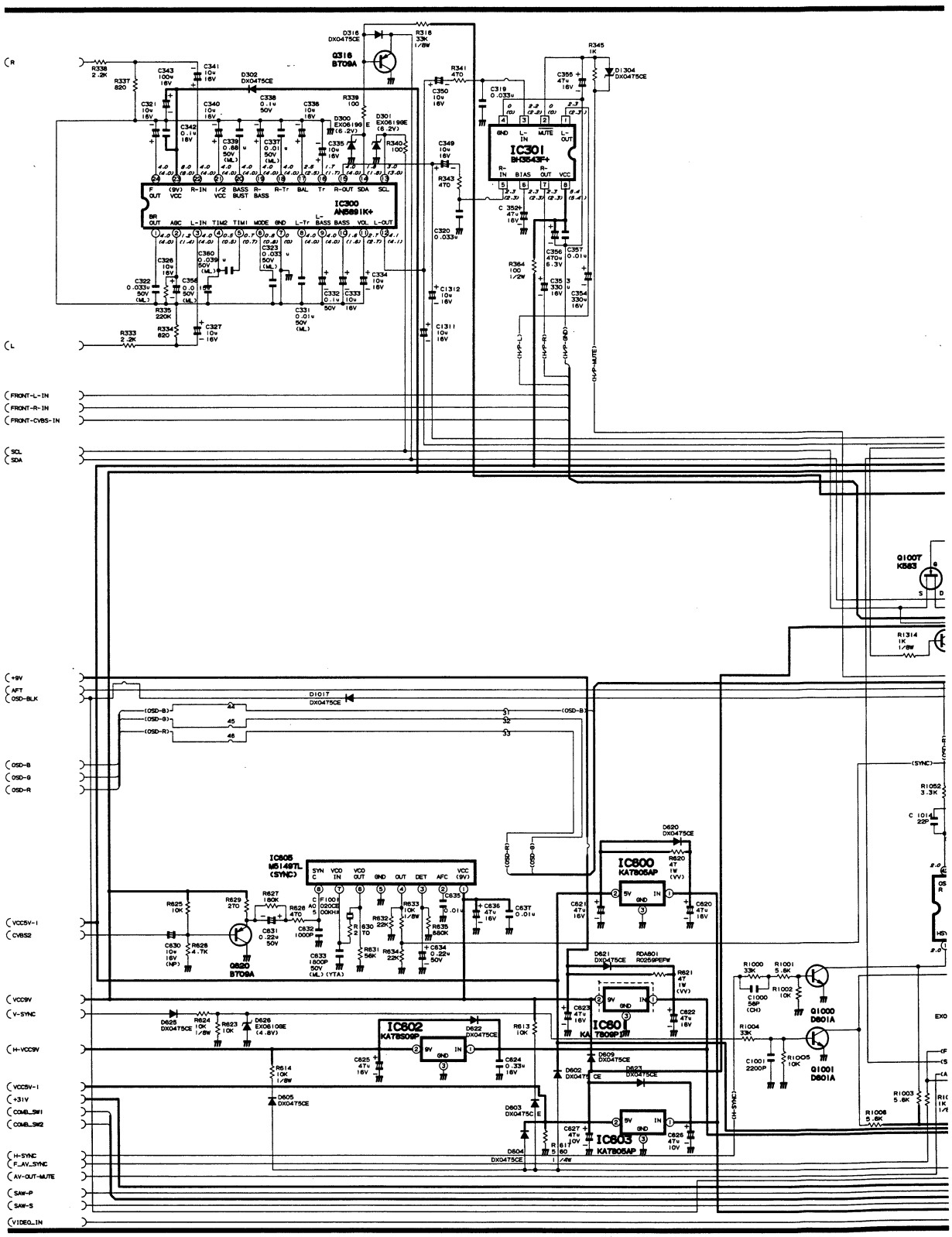
## 电路方框图：型号　29B-FX8 主电路装置-2

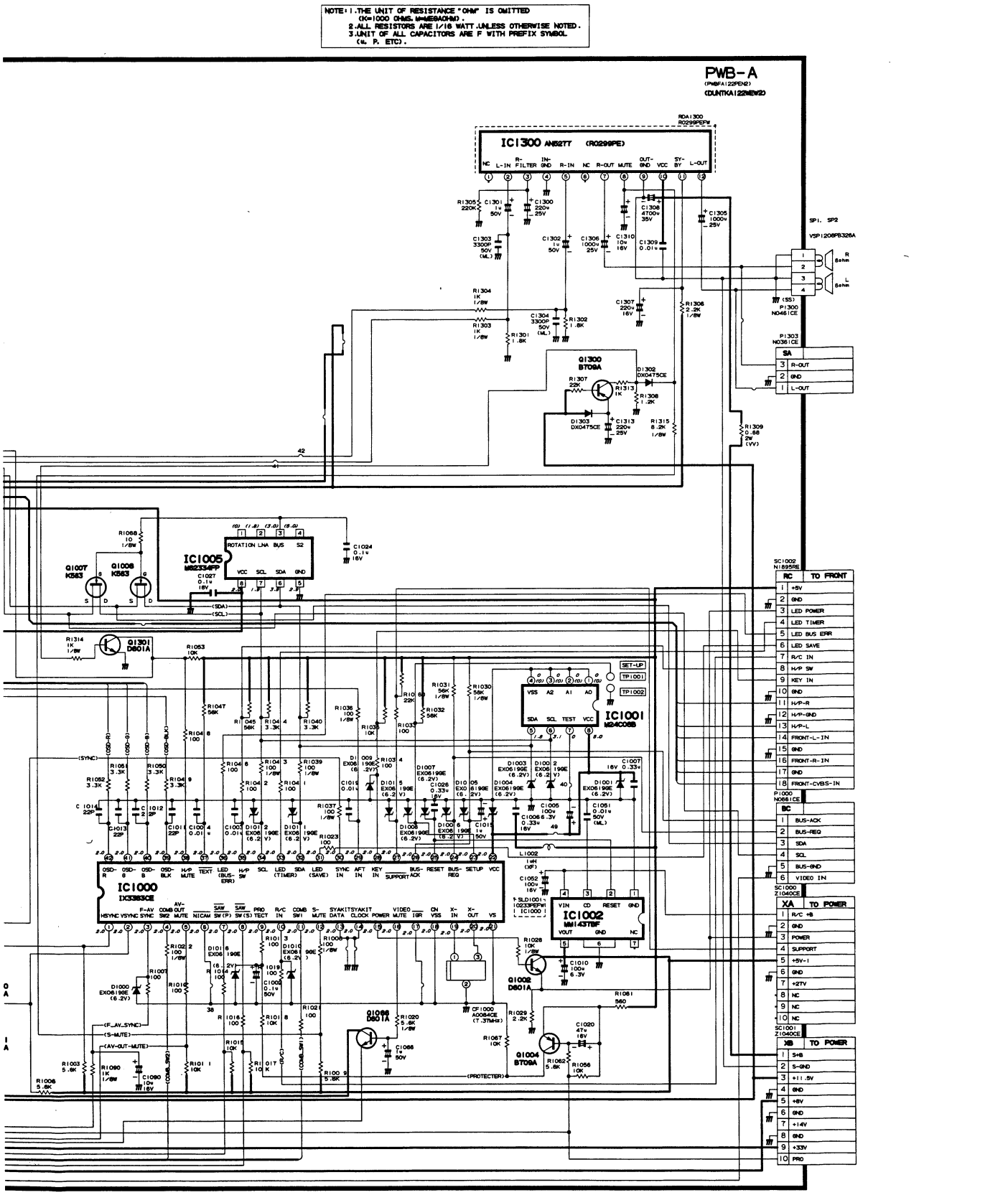



NOTE: 1.THE UNIT OF RESISTANCE "OHM" IS OMITTED
(K=1000 OHMS, M=MEGAOHM).
2.ALL RESISTORS ARE 1/16 WATT UNLESS OTHERWISE NOTED.
3.UNIT OF ALL CAPACITORS ARE F WITH PREFIX SYMBOL
(u, P, ETC).
PWB-A
IC1300 AN8277 (R0299PE)
IC1005 M62334FP
IC1000 IX3393CE
IC1001 M24C08B
IC1002 MM1437BF
Q1300 BT09A
Q1004 BT09A
Q1002 D801A
Q1003 D801A
Q1007 K583
Q1008 K583
Q1301 D801A
SC1002 N1895RE
RC TO FRONT
1 +5V
2 GND
3 LED POWER
4 LED TIMER
5 LED BUS ERR
6 LED SAVE
7 R/C IN
8 H/P SW
9 KEY IN
10 GND
11 H/P-R
12 H/P-GND
13 H/P-L
14 FRONT-L-IN
15 GND
16 FRONT-R-IN
17 GND
18 FRONT-CVBS-IN
P1000 N0861CE
BC
1 BUS-ACK
2 BUS-REQ
3 SDA
4 SCL
5 BUS-GND
6 VIDEO IN
SC1000 Z1040CE
XA TO POWER
1 R/C +8
2 GND
3 POWER
4 SUPPORT
5 +5V-1
6 GND
7 +2TV
8 NC
9 NC
10 NC
SC1001 Z1040CE
XB TO POWER
1 S+B
2 S-GND
3 +11.5V
4 GND
5 +8V
6 GND
7 +14V
8 GND
9 +33V
10 PRO
P1302 N0261CE (SP)
SP1, SP2
VSP1208FB336A
P1300 N0481CE (SS)
P1303 N0361CE
SA
3 R-OUT
2 GND
1 L-OUT
ROTATION LNA BUS S2
VCC SCL SDA GND
(SDA)
(SCL)
SET-UP
TP1001
TP1002
VSS A2 A1 A0
SDA SCL TEST VCC
VIN CD RESET GND
VOUT GND NC
(SYNC)
(F_AV_SYNC)
(S-MUTE)
(AV-OUT-MUTE)
(PROTECTER)
10 11 12 13 14 15 16 17 18 19

# SCHEMATIC DIAGRAM:MODEL 29B-FG8 MAIN2 UNIT

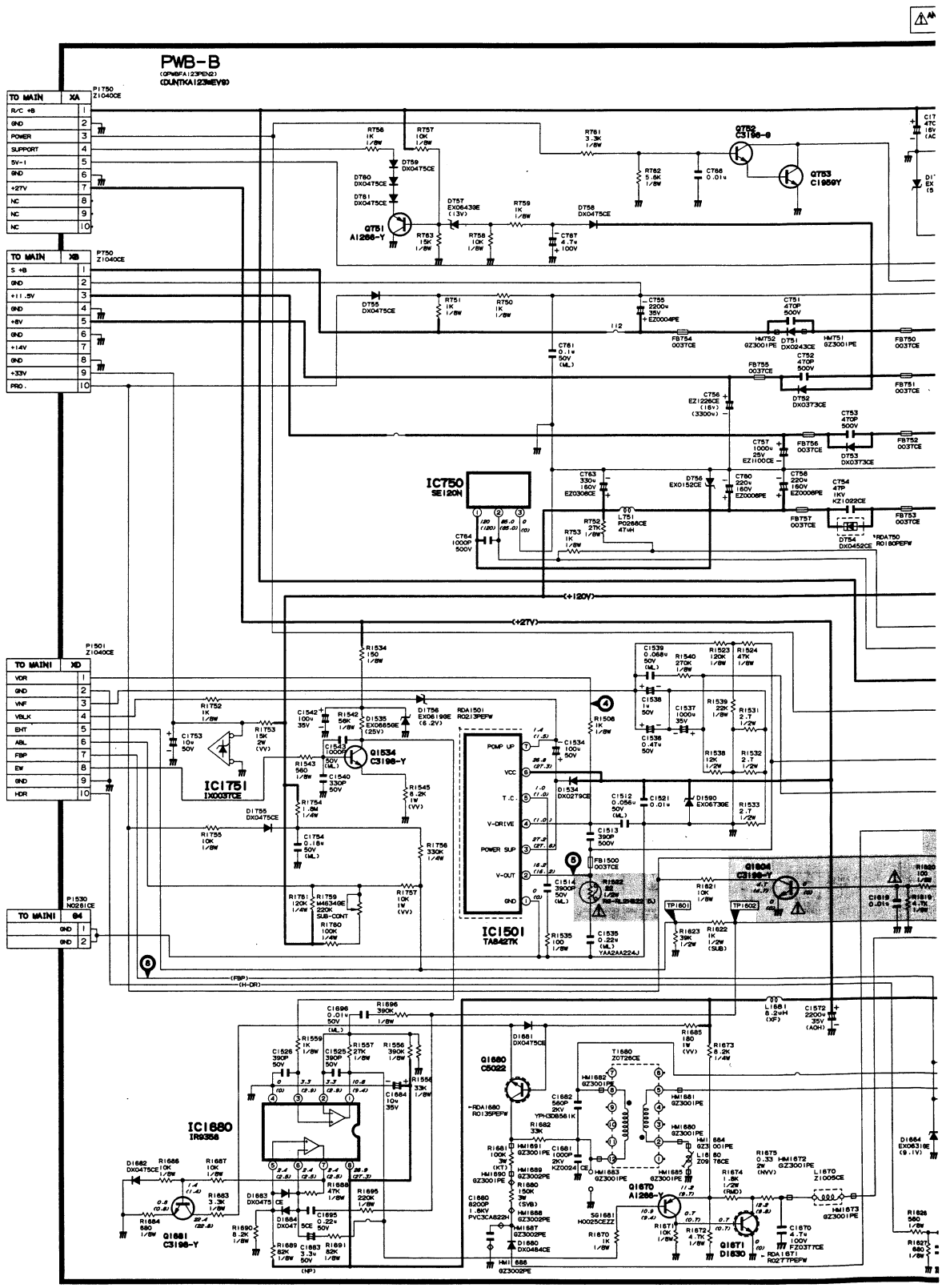
## 电路方框图：型号　29B-FG8 主电路装置-2





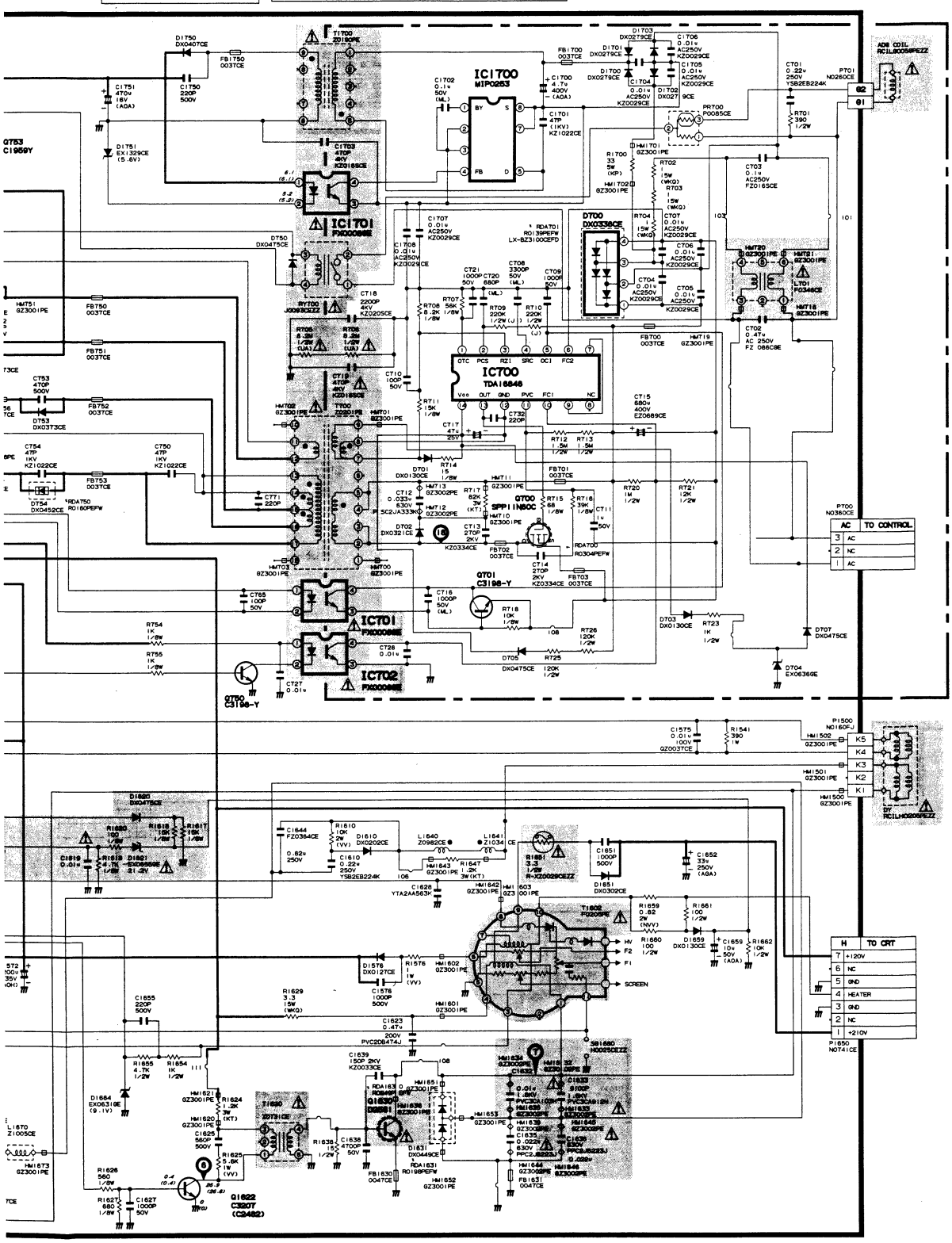

| 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 |
|---|---|---|---|---|---|---|---|---|---|

# SCHEMATIC DIAGRAM:POWER UNIT
## 电路方框图：电源装置



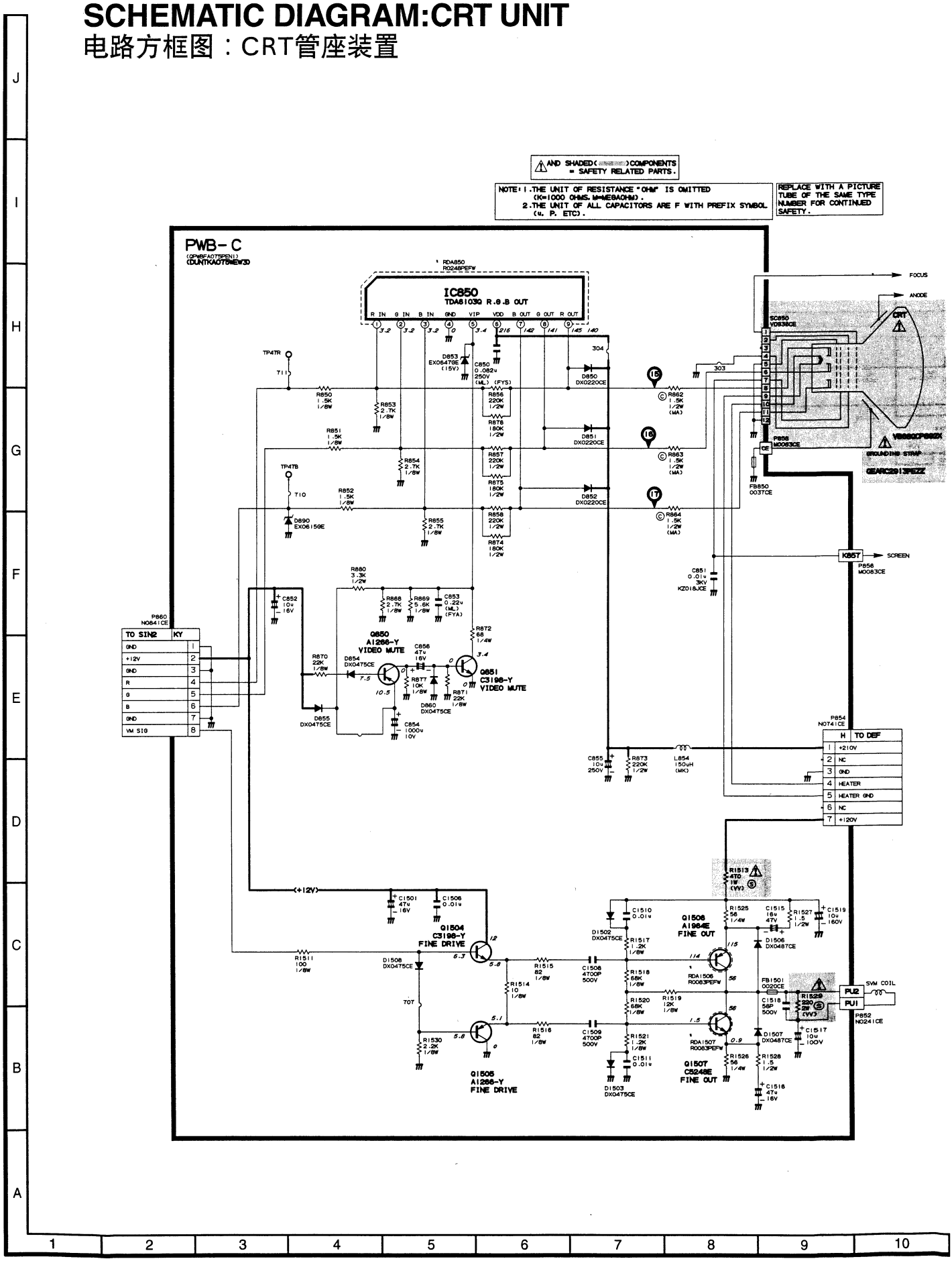
NOTE: 1. THE UNIT OF RESISTANCE "OHM" IS OMITTED (K=1000 OHMS, M=MEGAOHM).
2. THE UNIT OF ALL CAPACITORS ARE F WITH PREFIX SYMBOL (u, P, ETC).

⚠ AND SHADED ( ) COMPONENTS = SAFETY RELATED PARTS.

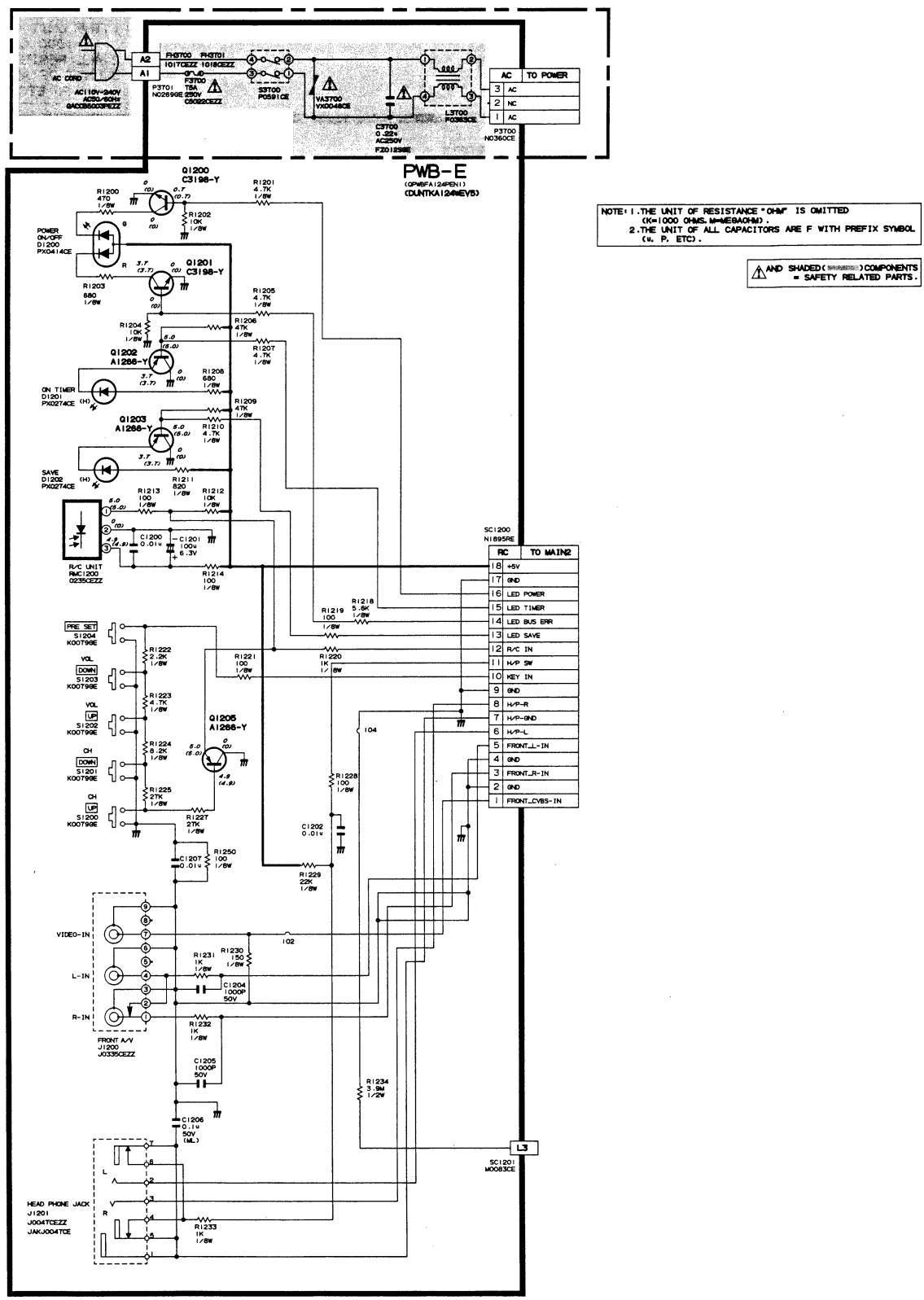



| 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 |
|---|---|---|---|---|---|---|---|---|---|

# SCHEMATIC DIAGRAM:CRT UNIT
## 电路方框图：CRT管座装置

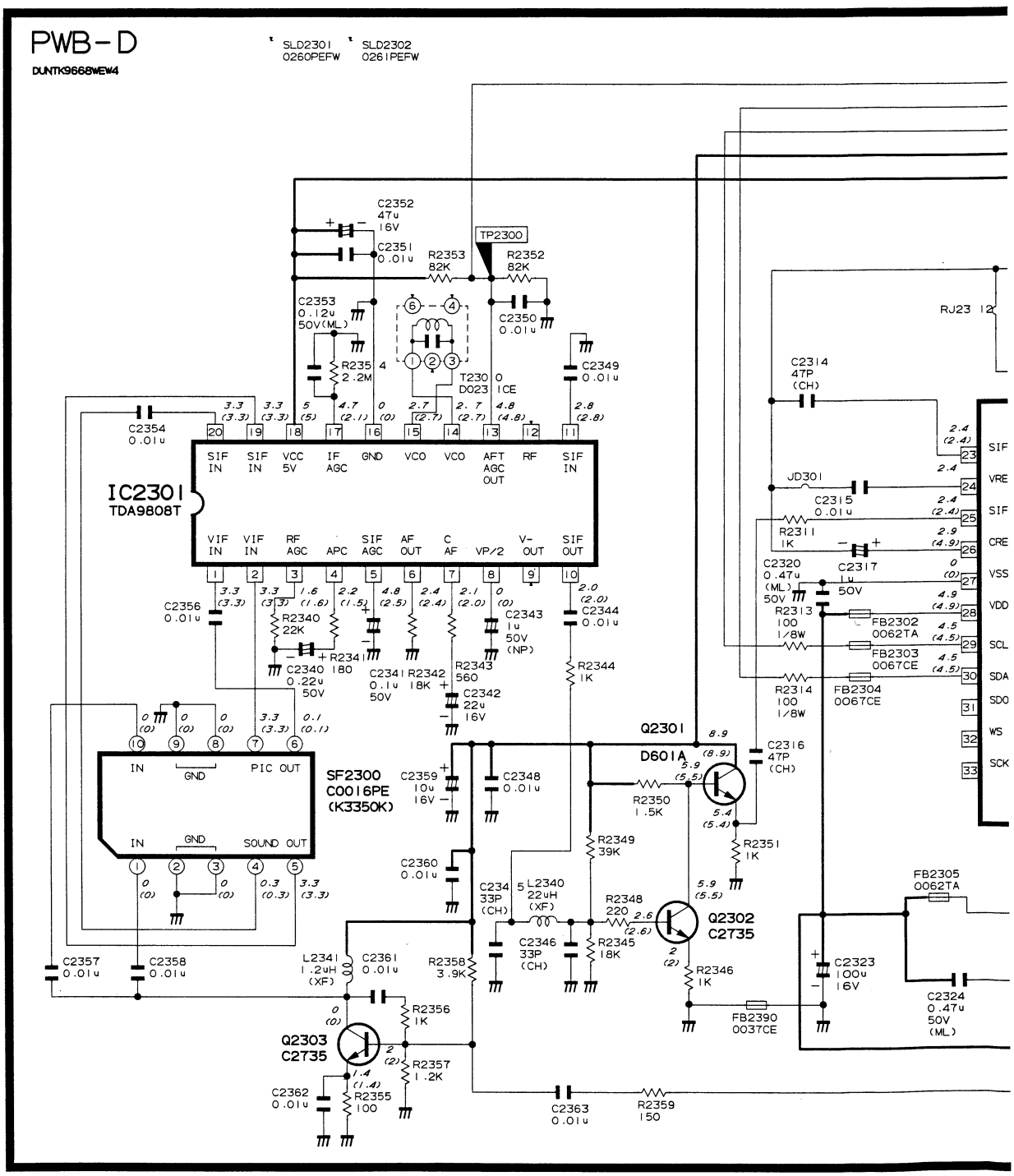


# SCHEMATIC DIAGRAM:FRONT UNIT
## 电路方框图： 前面装置

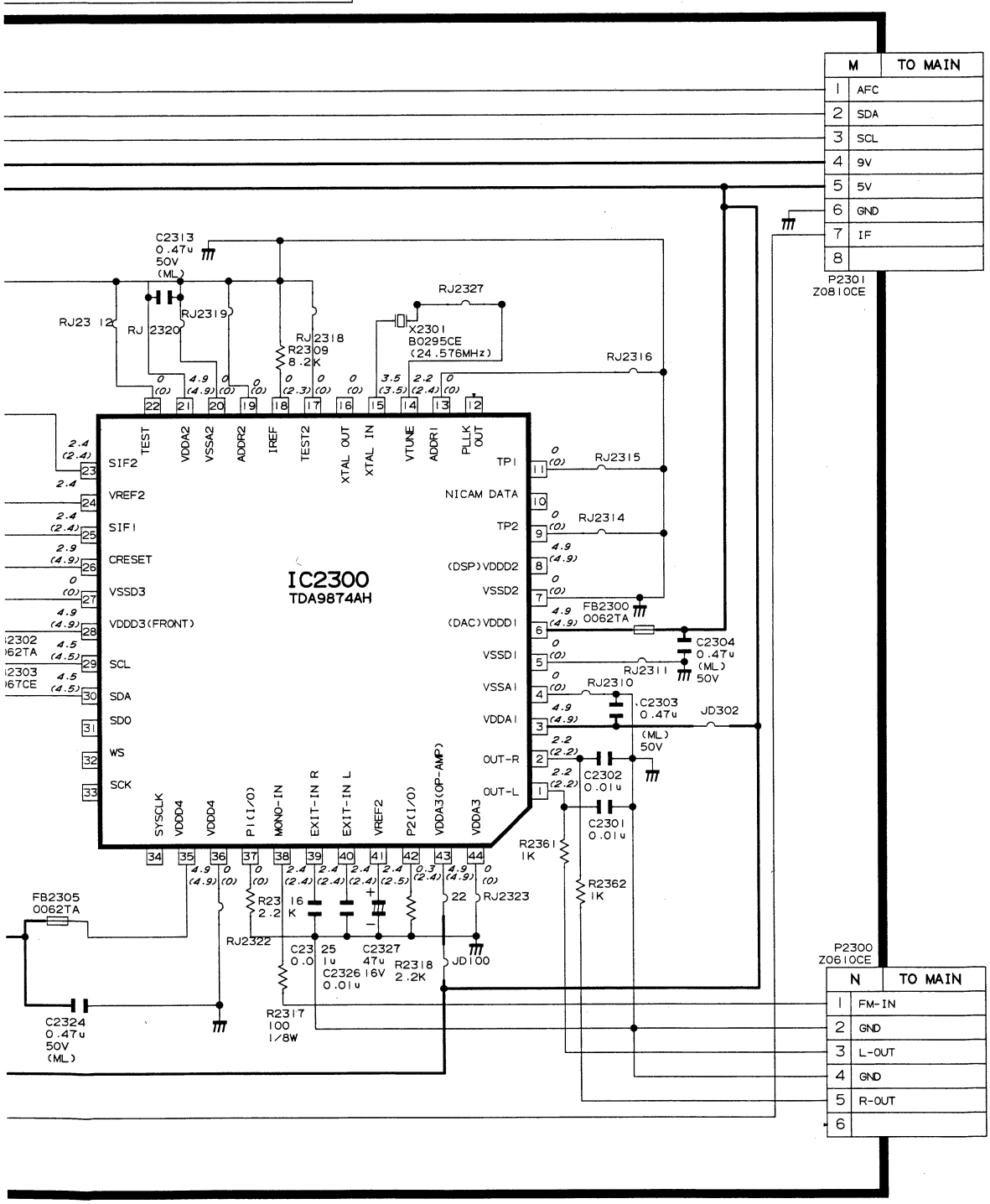


# SCHEMATIC DIAGRAM:NICAM UNIT
## 电路方框图：NICAM装置

NOTE: 1.THE UNIT OF RESISTANCE "OHM"
(K=1000 OHMS, M=MEGAOHM).
2.ALL RESISTORS ARE 1/16 WATT.
3.UNIT OF ALL CAPACITORS ARE F
(u, P, ETC).

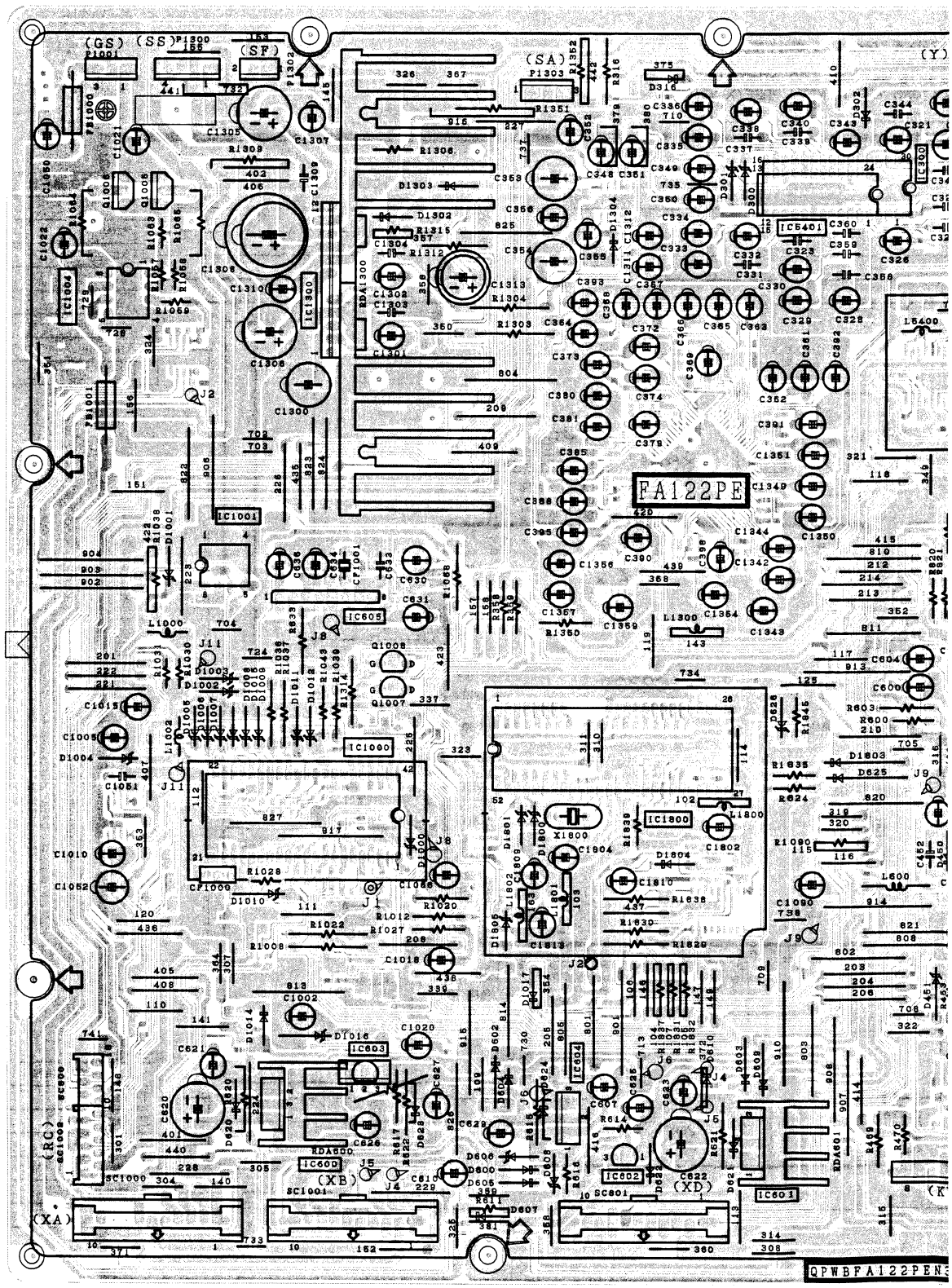


SISTANCE "OHM" IS OMITTED
=MEGAOHM).
ARE 1/16 WATT.UNLESS OTHERWISE NOTED.
PACITORS ARE F WITH PREFIX SYMBOL

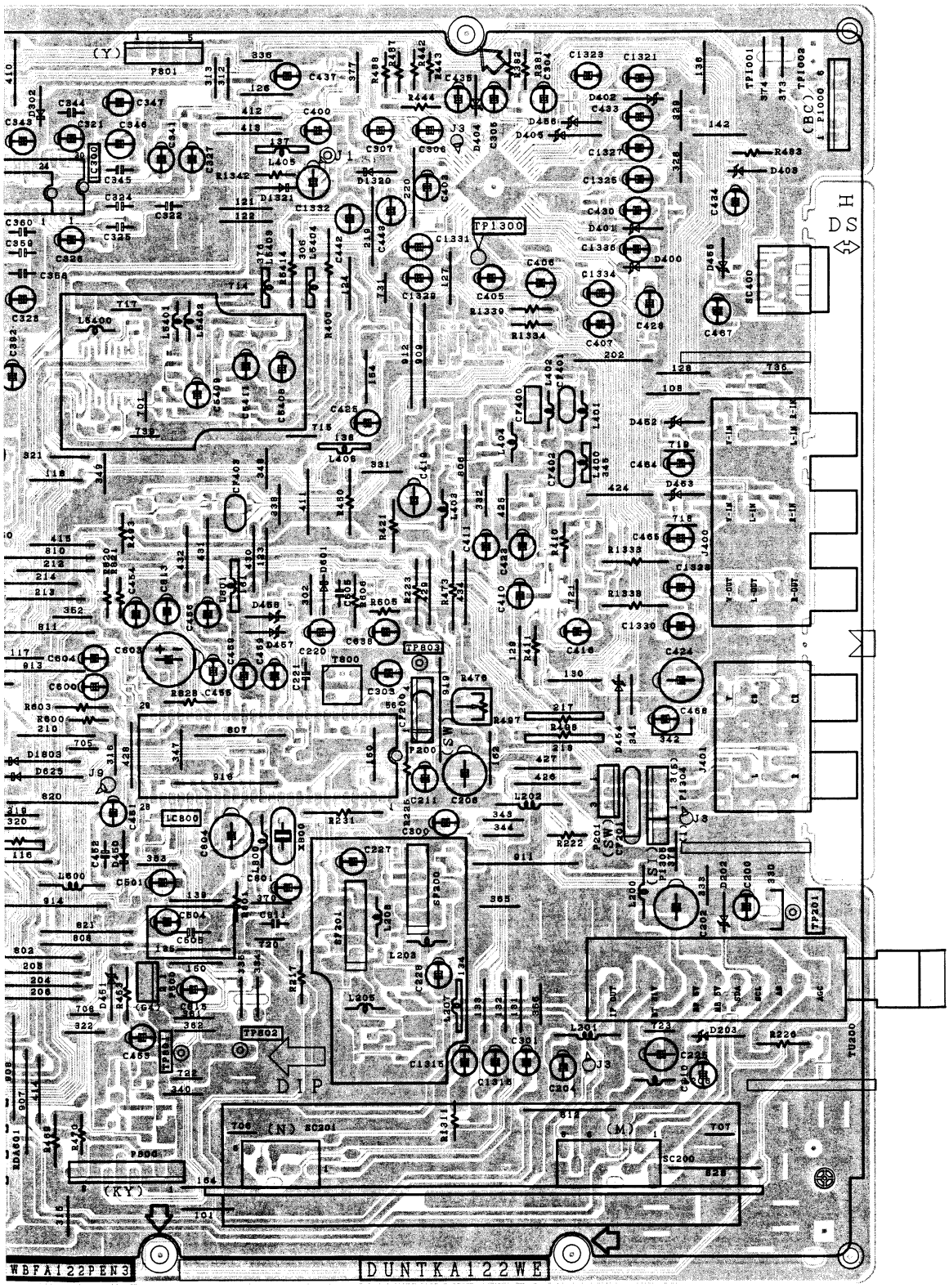



| 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 |
|---|---|---|---|---|---|---|---|---|---|

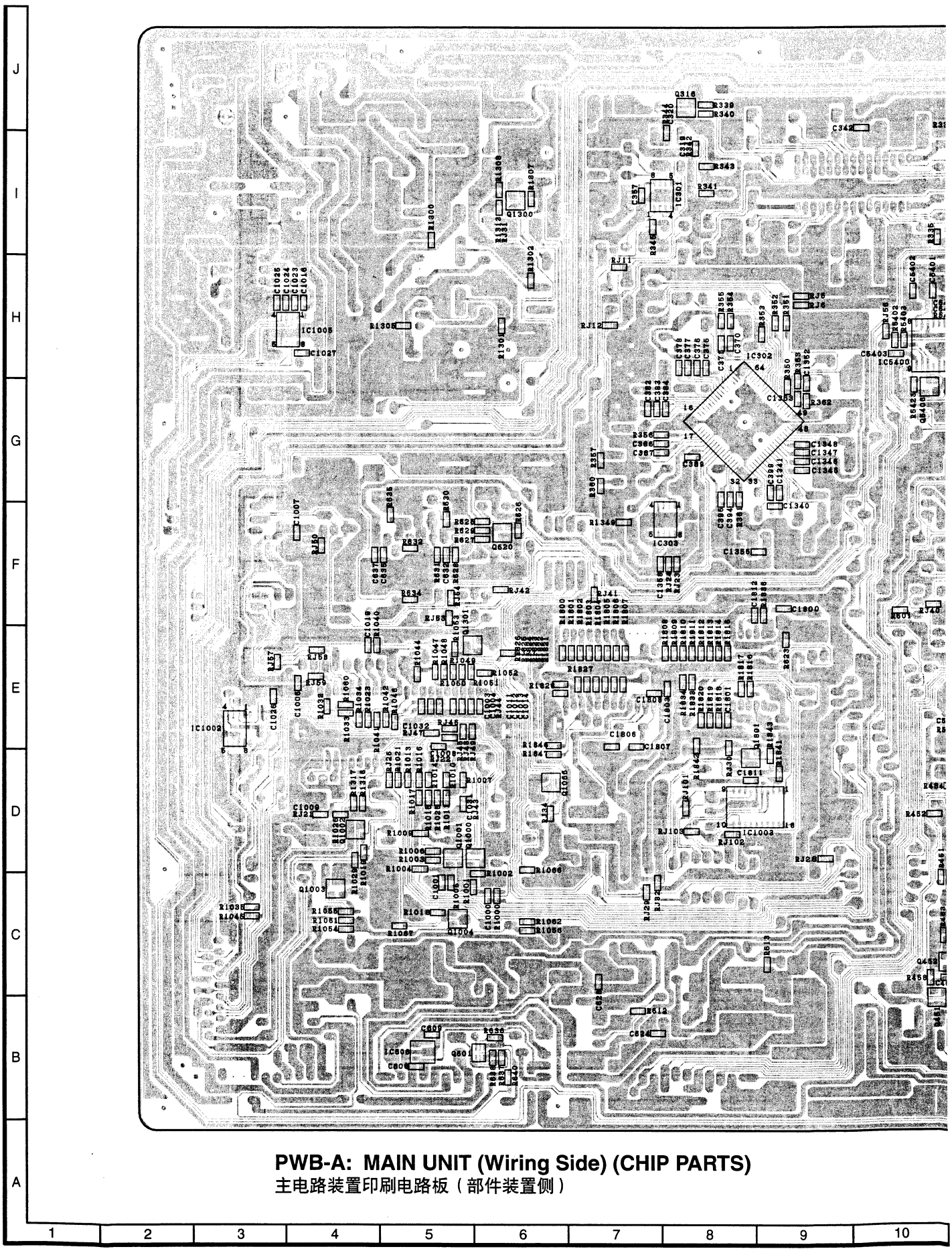
# PRINTED WIRING BOARD ASSEMBLIES
## 印刷电路板组件



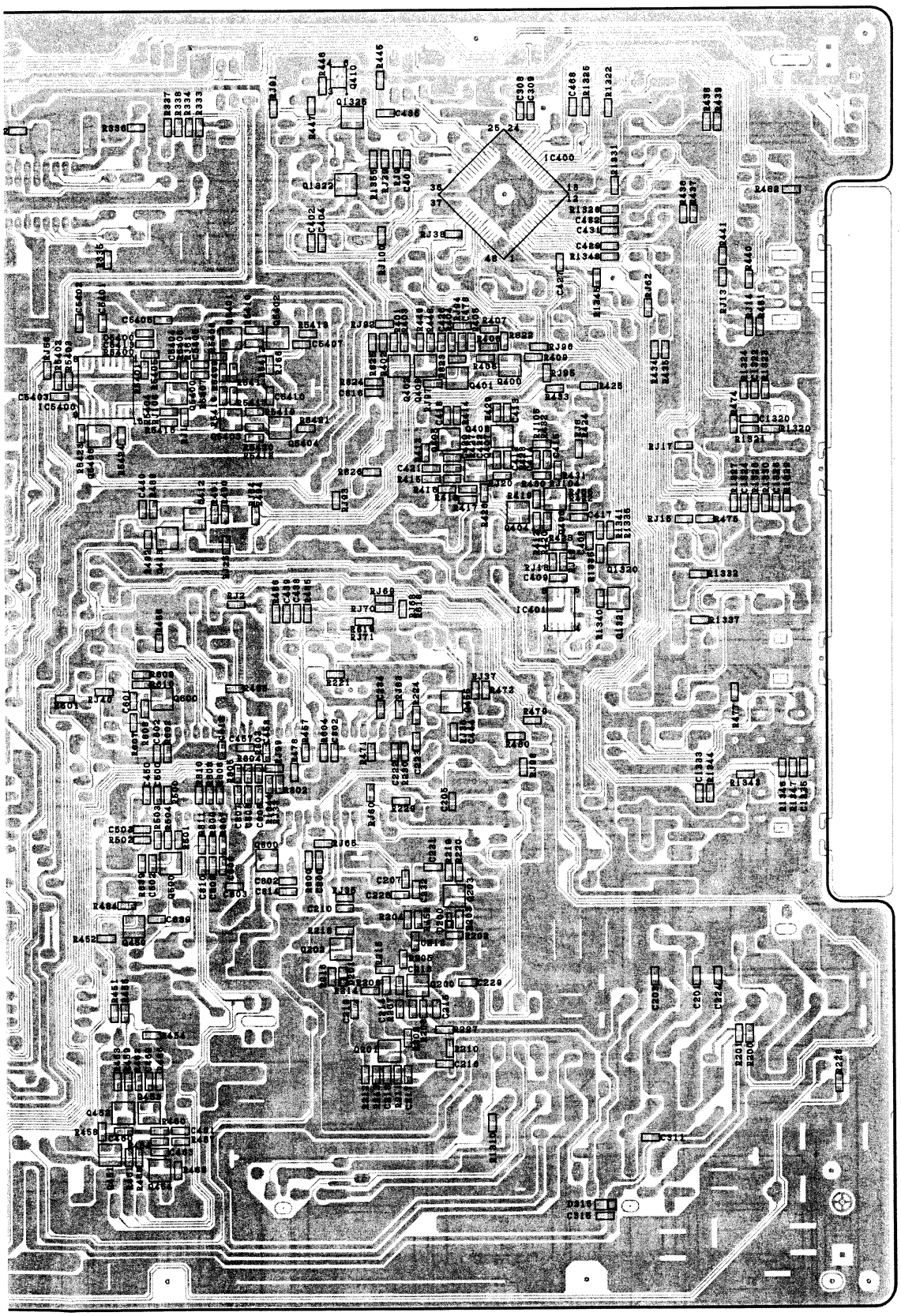

**PWB-A: MAIN Unit (Wiring Side)**
主电路装置印刷电路板（部件装置侧）




| 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 |
|---|---|---|---|---|---|---|---|---|---|

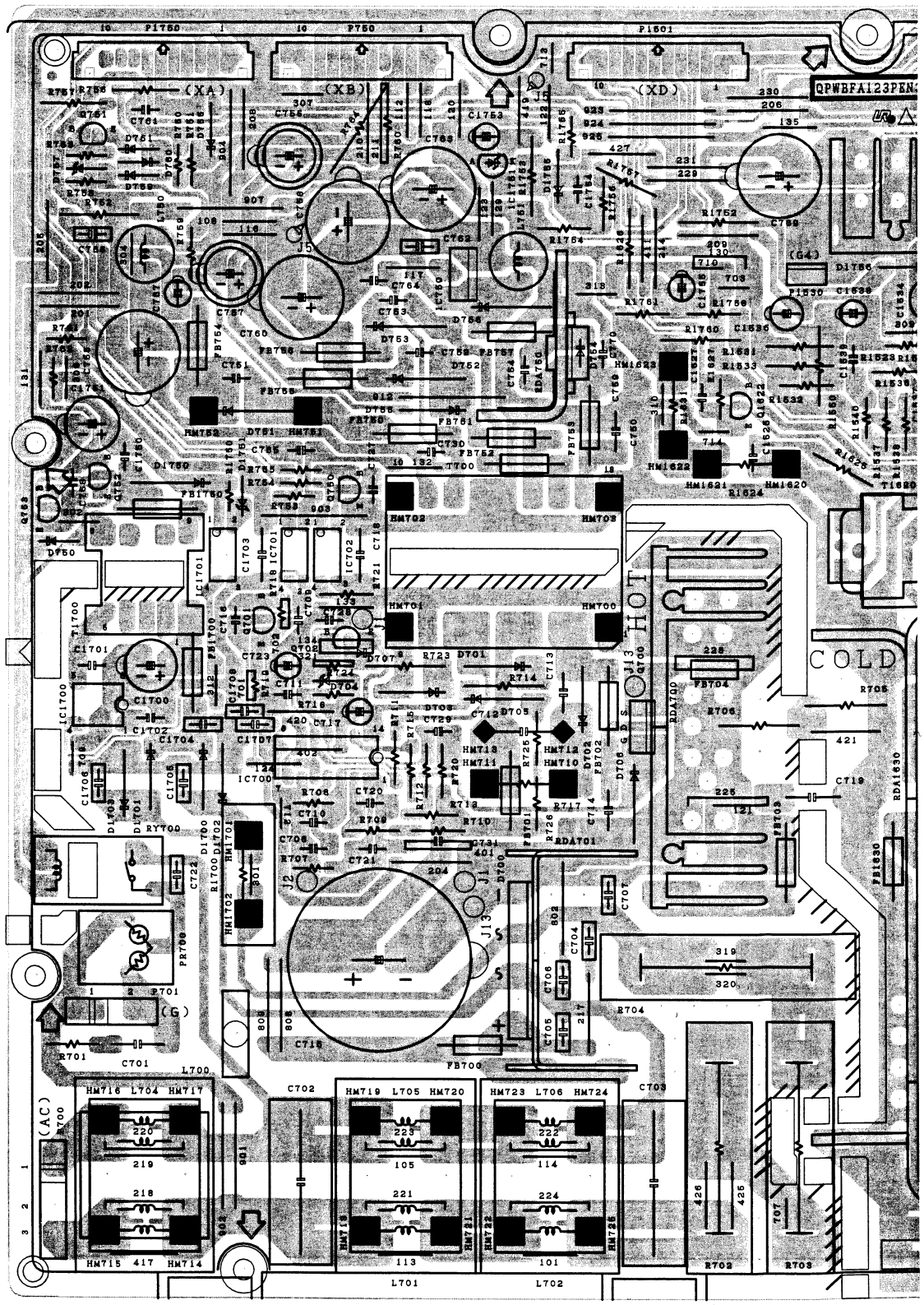


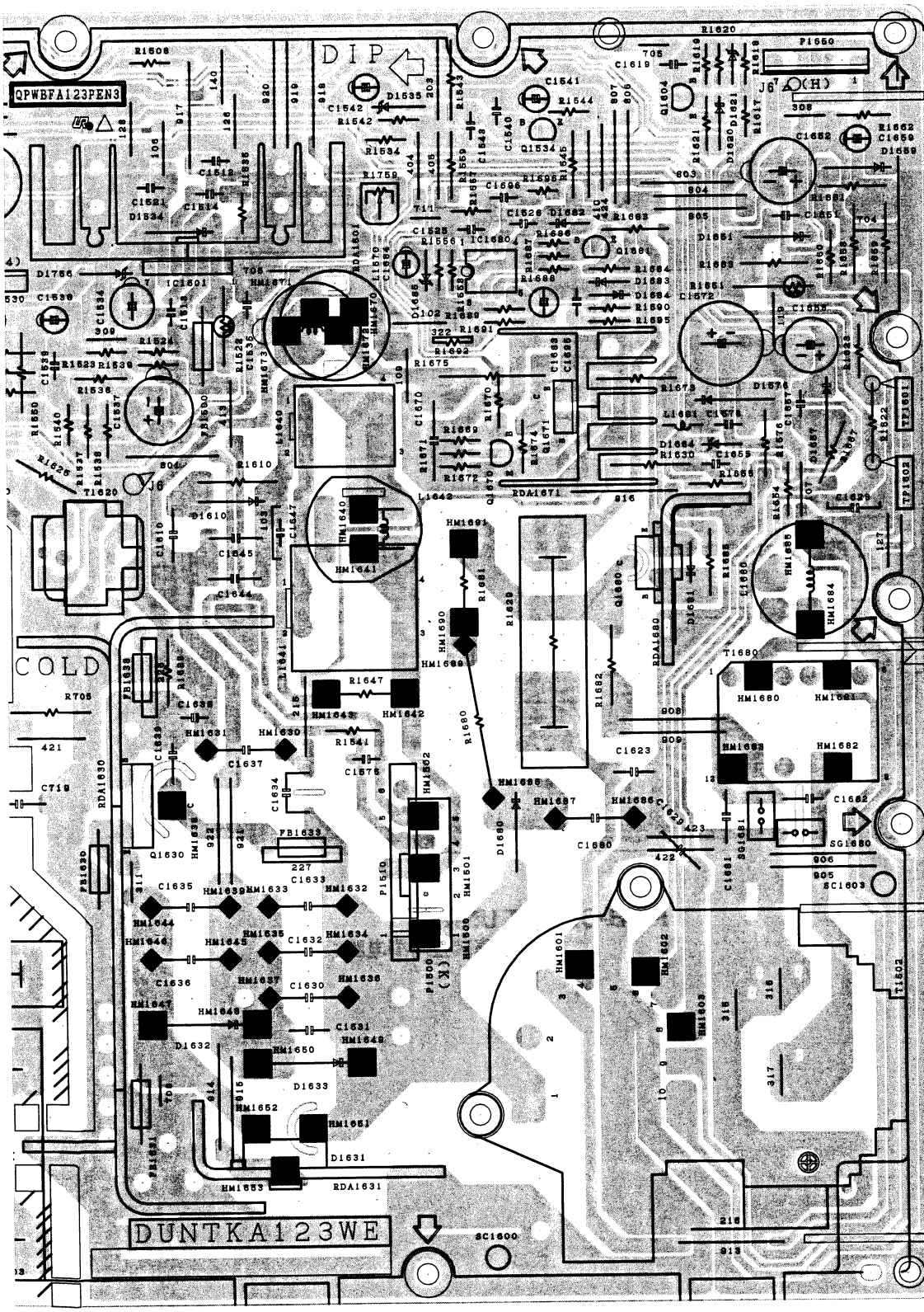

**PWB-A: MAIN UNIT (Wiring Side) (CHIP PARTS)**
主电路装置印刷电路板（部件装置侧）



| 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 |
|---|---|---|---|---|---|---|---|---|---|

## PWB-B: POWER UNIT
电源装置






| 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 |
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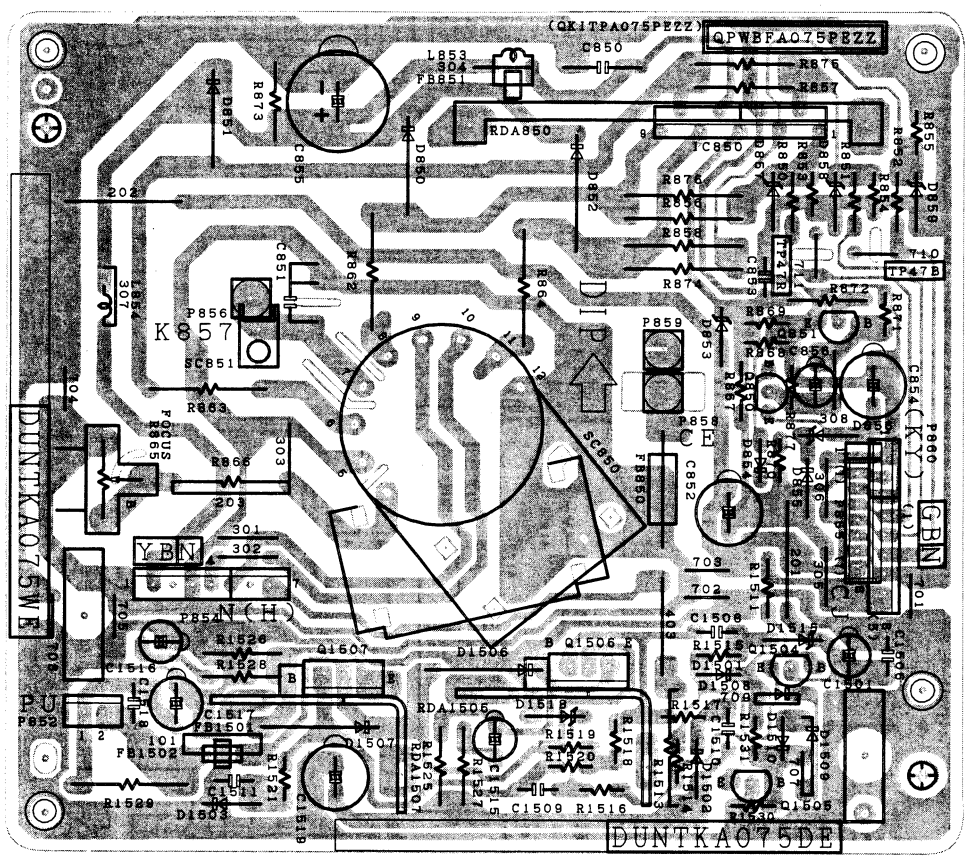
(QK1TPA075PEZZ)
QPWBFA075PEZZ
DUNTKA075WE
DUNTKA075DE
K857
IC850
RDA850
RDA1505
Q1506
Q1507
Y BN
G BN
N (H)
PU
DIP
SC851
SC850
FB850
FB851
FB1501
FB1502
TP47B
C850
C851
C852
C853(K1)
C1506
C1509
C1516
C1517
C1519
R1516
R1529
D1503
D1506
D1507
D1508
D1509
D1510
D1511
D1512
D1513
D1514
D1515
D1516
D1517
D1518
Q1504
Q1505
Q1509
L853
L854
L855
L1501
L1502
P856
P858
P859
P860
P852
FOCUS
R855
R863
R866
R873
R874
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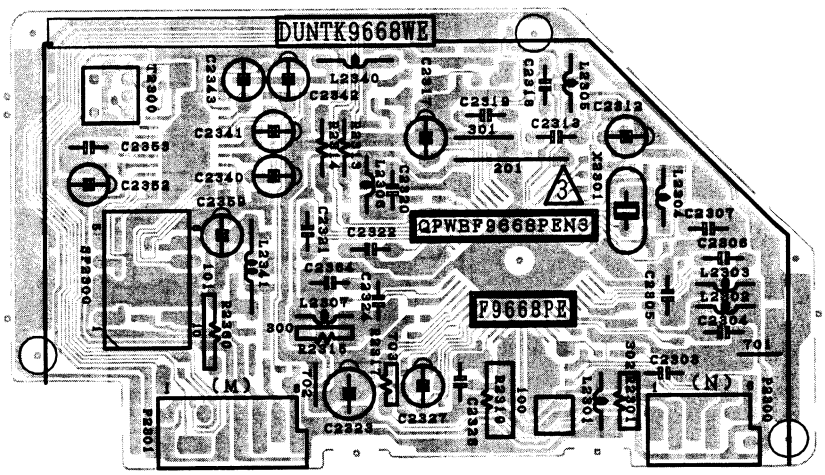
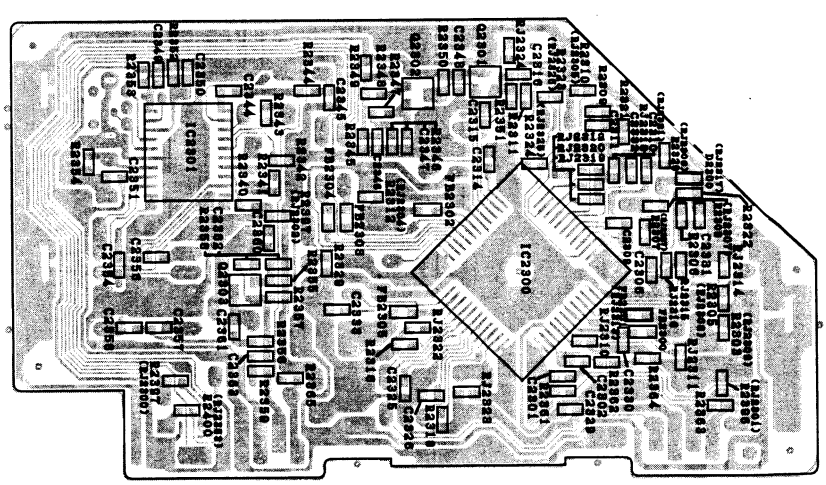
D889
D890

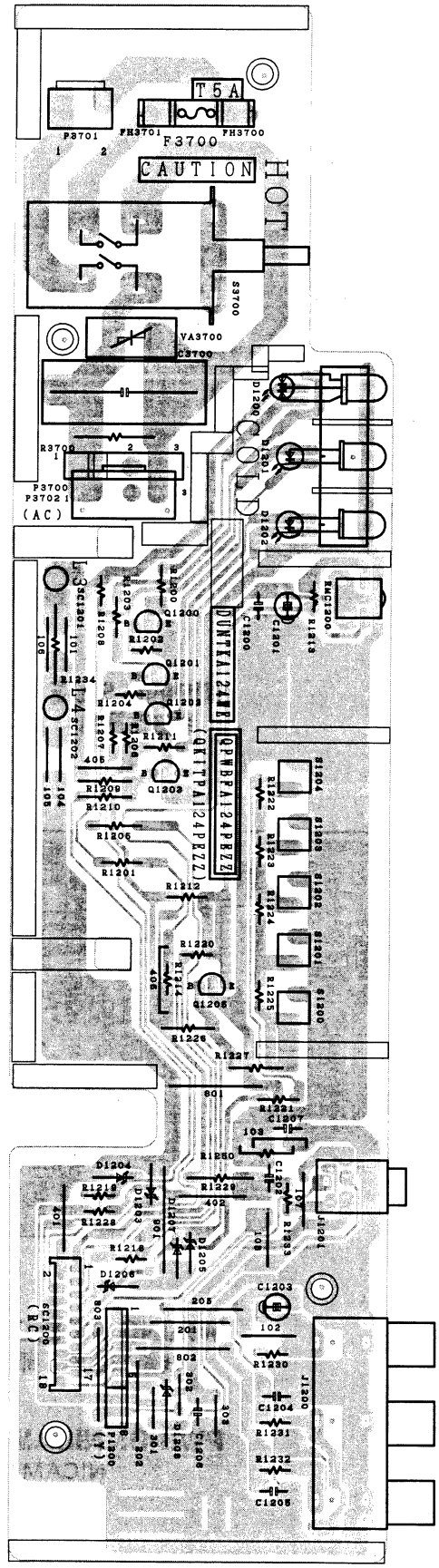



**WIRING SIDE**
线路贴置侧



**WIRING SIDE(CHIP PARTS)**
线路贴置侧（部件装置侧）

**PWB-D: NICAM UNIT**
NICAM装置印刷电路板




**PWB-E: FRONT UNIT**
前面装置

# REPLACEMENT PARTS LIST

## PARTS REPLACEMENT

Replacement parts which have these special safety characteristics are identified in this manual; electrical components having such features are identified by "⚠" in the Replacement Parts Lists.
The use of a substitute replacement part which does not have the same safety characteristics as the factory recommended replacement parts shown in this service manual may create shock, fire or other hazards.

### "HOW TO ORDER REPLACEMENT PARTS"

To have your order filled promptly and correctly, please furnish the following informations.

1. **MODEL NUMBER**
2. **REF. NO.**
3. **PART NO.**
4. **DESCRIPTION**

# 更换零件表

### 更换零件

本维修手册对具有特别安全要求的零件均用标记加以识别：
在此更换零件表中，具有特别安全要求的电路元件均用 ⚠ 标记，以便注意识别。更换零件时，为了用户的安全以及电视机原有的工作性能，务请使用夏普规定零件。否则，可能有导致触电、火灾或其他不测事故发生的可能。

### 更换零件的订货方法

为了能迅速而确实地接受订货、以及正确无误地按时交货，在订货时请将下列各项明确告知。

1. 型号
2. 参考编号
3. 零件编号
4. 零件名称

MARK ★ : SPARE PARTS-DELIVERY SECTION.

附★记号为备用部件的交货部门

| Ref. No. | Part No. | ★ | Description | Code |
|---|---|---|---|---|
| **PICTURE TUBE** | | | | |
| ⚠ | VB68QCP892X2E | R | Picture Tube (ITC) | CX |
| ⚠ | RCiLG0056PEZZ | R | Degaussing Coil | AS |
| | PMAGF3087CEZZ | R | Magnet | AL |
| | PMAGG3002CEZZ | R | Magnet | AC |
| | QEARC2913PEZZ | R | Grounding Strap | AK |
| | LHLDW1064PEKZ | R | ADG Coil Holder | AC |
| **PRINTED WIRING BOARD ASSEMBLIES** *(NOT REPLACEMENT ITEM)* | | | | |
| PWB-A | DUNTKA122WEW0 | - | Main Unit(29B-FX8) | — |
| PWB-A | DUNTKA122FMW2 | - | Main Unit(29B-FG8) | — |
| PWB-B | DUNTKA123WEV9 | - | Power Unit | — |
| PWB-C | DUNTKA075FMW3 | - | CRT Unit | — |
| PWB-D | DUNTK9668WEW4 | - | NICAM Unit | — |
| PWB-E | DUNTKA124WEV5 | - | Front Unit | — |
| **DUNTKA122WEW0(29B-FX8)<br>DUNTKA122WEW2(29B-FG8)<br>PWB-A:MAIN UNIT** | | | | |
| **TUNER** | | | | |
| | ***NOTE: THE PARTS HERES SHOWN ARE SUPPLIED AS AN ASSEMBLY NOT INDEPENDENTLY.*** | | | |
| ⚠ TU200 | VTUVTST5HD84/ | R | Tuner | BB |
| **INTEGRATED CIRCUITS** | | | | |
| IC300 | VHiAN5891K+-1 | R | AN5891K+ | AQ |
| IC301 | VHiBH3543F+-1 | R | BH3543F+ | AE |
| IC400 | VHiCXA2089Q-1 | R | CXA2089Q | AN |
| IC401 | VHiNJ2233BM-1 | R | NJ2233BM | AE |
| IC600 | VHiKA7805AP-1 | R | KA7805AP | AE |
| IC601 | VHiKA7809AP-1 | R | KA7809AP | AE |
| IC602 | VHiKA78S09P-1 | R | KA78S09P | AD |
| IC603 | VHiKA7805AP-1 | R | KA7805AP | AE |
| IC605 | VHiM51497L/-1 | R | M51497L | AL |
| IC800 | RH-iX3394CEN2 | R | IX3394CE | AY |

| Ref. No. | Part No. | ★ | Description | Code |
|---|---|---|---|---|
| IC1000 | RH-iX3383CEN2 | R | IX3383CE | AX |
| IC1001 | VHiM24C08B/-1 | R | M24C08B | AM |
| IC1002 | VHiMM1437BF-1 | R | MM1437BF | AF |
| IC1005 | VHiM62334FP-1 | R | M62334FP | AH |
| IC1300 | VHiAN5277//-1 | R | AN5277 | AN |
| IC5400 | VHiTDA9181T-1* | R | TDA9181T | AU |
| **TRANSISTORS** | | | | |
| Q200 | VS2SC2735//1E | R | 2SC2735 | AC |
| Q201 | VS2SC2735//1E | R | 2SC2735 | AC |
| Q202 | VS2SD601A//-1 | R | 2SD601A | AC |
| Q203 | VS2SD601A//-1 | R | 2SD601A | AC |
| Q316 | VS2SB709A//-1 | R | 2SB709A | AA |
| Q400 | VS2SD601A//-1 | R | 2SD601A | AC |
| Q401 | VS2SD601A//-1 | R | 2SD601A | AC |
| Q402 | VS2SD601A//-1 | R | 2SD601A | AC |
| Q409 | VS2SD601A//-1 | R | 2SD601A | AC |
| Q410 | VSiMZ1A////-1 | R | IMZ1A | AC |
| Q450 | VS2SB709A//-1 | R | 2SB709A | AA |
| Q451 | VS2SD601A//-1 | R | 2SD601A | AC |
| Q452 | VS2SD601A//-1 | R | 2SD601A | AC |
| Q453 | VS2SD601A//-1 | R | 2SD601A | AC |
| Q454 | VS2SD601A//-1 | R | 2SD601A | AC |
| Q455 | VS2SD601A//-1 | R | 2SD601A | AC |
| Q600 | VS2SD601A//-1 | R | 2SD601A | AC |
| Q620 | VS2SB709A//-1 | R | 2SB709A | AA |
| Q800 | VS2SB709A//-1 | R | 2SB709A | AA |
| Q1000 | VS2SD601A//-1 | R | 2SD601A | AC |
| Q1001 | VS2SD601A//-1 | R | 2SD601A | AC |
| Q1002 | VS2SD601A//-1 | R | 2SD601A | AC |
| Q1004 | VS2SB709A//-1 | R | 2SB709A | AA |
| Q1007 | VS2SK583///-1 | R | 2SK583 | AE |
| Q1008 | VS2SK583///-1 | R | 2SK583 | AE |
| Q1066 | VS2SD601A//-1 | R | 2SD601A | AC |
| Q1300 | VS2SB709A//-1 | R | 2SB709A | AA |
| Q1301 | VS2SD601A//-1 | R | 2SD601A | AC |
| Q1320 | VS2SD601A//-1 | R | 2SD601A | AC |
| Q1321 | VS2SD601A//-1 | R | 2SD601A | AC |
| Q1322 | VS2SB709A//-1 | R | 2SB709A | AA |
| Q1325 | VS2SD601A//-1 | R | 2SD601A | AC |
| Q5400 | VS2SD601A//-1 | R | 2SD601A | AC |
| Q5401 | VS2SD601A//-1 | R | 2SD601A | AC |
| Q5402 | VS2SB709A//-1 | R | 2SB709A | AA |
| Q5403 | VS2SD601A//-1 | R | 2SD601A | AC |
| Q5404 | VS2SB709A//-1 | R | 2SB709A | AA |
| Q5406 | VS2SD601A//-1 | R | 2SD601A | AC |

| Ref. No. | Part No. | ★ | Description | Code |
|---|---|---|---|---|
| | | | **DIODES** | |
| D200 | VHD1SS390++-1 | R | 1SS390++ | AB |
| D201 | VHD1SS390++-1 | R | 1SS390++ | AB |
| D202 | RH-EX0619GEZZ | R | Zener Diode | AA |
| D203 | RH-EX0619GEZZ | R | Zener Diode | AA |
| D300 | RH-EX0619GEZZ | R | Zener Diode | AA |
| D301 | RH-EX0619GEZZ | R | Zener Diode | AA |
| D302 | RH-DX0475CEZZ | R | DX0475CE | AB |
| D315 | RH-EX1395CEZZ | R | Zener Diode | AC |
| D316 | RH-DX0475CEZZ | R | DX0475CE | AB |
| D400 | RH-EX0631GEZZ | R | Zener Diode | AA |
| D401 | RH-EX0631GEZZ | R | Zener Diode | AA |
| D402 | RH-EX0631GEZZ | R | Zener Diode | AA |
| D403 | RH-EX0631GEZZ | R | Zener Diode | AA |
| D404 | RH-EX0631GEZZ | R | Zener Diode | AA |
| D405 | RH-EX0619GEZZ | R | Zener Diode | AA |
| D450 | RH-DX0475CEZZ | R | DX0475CE | AB |
| D451 | RH-EX0621GEZZ | R | Zener Diode | AB |
| D455 | RH-EX0631GEZZ | R | Zener Diode | AA |
| D456 | RH-EX0631GEZZ | R | Zener Diode | AA |
| D457 | RH-EX0631GEZZ | R | Zener Diode | AA |
| D458 | RH-EX0631GEZZ | R | Zener Diode | AA |
| D602 | RH-DX0475CEZZ | R | DX0475CE | AB |
| D603 | RH-DX0475CEZZ | R | DX0475CE | AB |
| D604 | RH-DX0475CEZZ | R | DX0475CE | AB |
| D605 | RH-DX0475CEZZ | R | DX0475CE | AB |
| D609 | RH-DX0475CEZZ | R | DX0475CE | AB |
| D620 | RH-DX0475CEZZ | R | DX0475CE | AB |
| D621 | RH-DX0475CEZZ | R | DX0475CE | AB |
| D622 | RH-DX0475CEZZ | R | DX0475CE | AB |
| D623 | RH-DX0475CEZZ | R | DX0475CE | AB |
| D625 | RH-DX0475CEZZ | R | DX0475CE | AB |
| D626 | RH-EX0610GEZZ | R | Zener Diode | AA |
| D1000 | RH-EX0619GEZZ | R | Zener Diode | AA |
| D1001 | RH-EX0619GEZZ | R | Zener Diode | AA |
| D1002 | RH-EX0619GEZZ | R | Zener Diode | AA |
| D1003 | RH-EX0619GEZZ | R | Zener Diode | AA |
| D1004 | RH-EX0619GEZZ | R | Zener Diode | AA |
| D1005 | RH-EX0619GEZZ | R | Zener Diode | AA |
| D1006 | RH-EX0619GEZZ | R | Zener Diode | AA |
| D1007 | RH-EX0619GEZZ | R | Zener Diode | AA |
| D1008 | RH-EX0619GEZZ | R | Zener Diode | AA |
| D1009 | RH-EX0619GEZZ | R | Zener Diode | AA |
| D1010 | RH-EX0619GEZZ | R | Zener Diode | AA |
| D1011 | RH-EX0619GEZZ | R | Zener Diode | AA |
| D1012 | RH-EX0619GEZZ | R | Zener Diode | AA |
| D1015 | RH-EX0619GEZZ | R | Zener Diode | AA |
| D1016 | RH-EX0619GEZZ | R | Zener Diode | AA |
| D1017 | RH-DX0475CEZZ | R | DX0475CE | AB |
| D1302 | RH-DX0475CEZZ | R | DX0475CE | AB |
| D1303 | RH-DX0475CEZZ | R | DX0475CE | AB |
| D1304 | RH-DX0475CEZZ | R | DX0475CE | AB |
| D1320 | RH-DX0475CEZZ | R | DX0475CE | AB |
| D1321 | RH-DX0475CEZZ | R | DX0475CE | AB |
| | | | **PACKAGED CIRCUIT** | |
| X800 | RCRSB0278CEZZ | R | Crystal, CRSB0278CE | AG |
| | | | **FILTERS** | |
| CF200 | RFiLC0403CEZZ | R | Filter, FiLC0403CE | AE |
| CF400 | RFiLC0013CEZZ | R | Filter, FiLC0013CE | AE |
| CF401 | RFiLC0318CEZZ | R | Filter, FiLC0318CE | AG |
| CF402 | RFiLC0024CEZZ | R | Filter, FiLC0024CE | AE |
| CF1000 | RFiLA0084CEZZ | R | Filter, FiLA0084CE | AE |
| CF1001 | RFiLA0020CEZZ | R | Filter, FiLA0020CE | AD |
| SF200 | RFiLC0444CEZZ | R | Filter, FiLC0444CE | AN |
| SF201 | RFiLC0445CEZZ | R | Filter, FiLC0445CE | AM |
| | | | **COILS** | |
| L200 | VP-DF270K0000 | R | Peaking, 27µH | AB |
| L201 | VP-DF270K0000 | R | Peaking, 27µH | AB |
| L202 | VP-DF120K0000 | R | Peaking, 12µH | AB |
| L203 | VP-XF1R2K0000 | R | Peaking, 1.2µH | AB |
| L205 | VP-XF1R2K0000 | R | Peaking, 1.2µH | AB |
| L301 | VP-CF270K0000 | R | Peaking, 27µH | AB |
| L302 | VP-DF390K0000 | R | Peaking, 39µH | AB |
| L400 | VP-XF150K0000 | R | Peaking, 15µH | AB |
| L401 | VP-XF6R8K0000 | R | Peaking, 6.8µH | AB |
| L402 | VP-XF100K0000 | R | Peaking, 10µH | AB |
| L600 | VP-DF120K0000 | R | Peaking, 12µH | AB |
| L800 | VP-DF120K0000 | R | Peaking, 12µH | AB |
| L801 | VP-DF6R8K0000 | R | Peaking, 6.8µH | AB |
| L1002 | VP-XF1R0K0000 | R | Peaking, 1µH | AB |
| L5400 | VP-XF100K0000 | R | Peaking, 10µH | AB |
| L5403 | VP-XF120K0000 | R | Peaking, 12µH | AB |
| L5404 | VP-XF120K0000 | R | Peaking, 12µH | AB |
| T800 | RCiLD0005PEZZ | R | Detection Coil | AF |

| Ref. No. | Part No. | ★ | | | | Code |
|---|---|---|---|---|---|---|
| | | | **CAPACITORS** | | | |
| C201 | VCKYCY1HF103Z | R | 0.01 | 50V | Ceramic | AA |
| C202 | VCEA0A0JW228M | R | 2200 | 6.3V | Electrolytic | AD |
| C203 | VCKYCY1HF103Z | R | 0.01 | 50V | Ceramic | AA |
| C204 | VCEA0A1HW106M | R | 10 | 50V | Electrolytic | AB |
| C205 | VCKYCY1HF103Z | R | 0.01 | 50V | Ceramic | AA |
| C206 | VCEA0A0JW228M | R | 2200 | 6.3V | Electrolytic | AD |
| C207 | VCKYCY1HF103Z | R | 0.01 | 50V | Ceramic | AA |
| C210 | VCKYCY1HF103Z | R | 0.01 | 50V | Ceramic | AA |
| C211 | VCEA0A1HW225M | R | 2.2 | 50V | Electrolytic | AB |
| C212 | VCKYCY1HF103Z | R | 0.01 | 50V | Ceramic | AA |
| C213 | VCKYCY1HF103Z | R | 0.01 | 50V | Ceramic | AA |
| C214 | VCKYCY1HF103Z | R | 0.01 | 50V | Ceramic | AA |
| C215 | VCKYCY1HF103Z | R | 0.01 | 50V | Ceramic | AA |
| C216 | VCKYCY1HF103Z | R | 0.01 | 50V | Ceramic | AA |
| C217 | VCKYCY1HF103Z | R | 0.01 | 50V | Ceramic | AA |
| C218 | VCKYCY1HF103Z | R | 0.01 | 50V | Ceramic | AA |
| C219 | VCKYCY1HF103Z | R | 0.01 | 50V | Ceramic | AA |
| C220 | VCEA0A1HW224M | R | 0.22 | 50V | Electrolytic | AB |
| C221 | VCQYTA1HM102K | R | 1000p | 50V | Mylar | AA |
| C222 | VCKYCY1CF104Z | R | 0.1 | 16V | Ceramic | AA |
| C223 | VCKYCY1HF103Z | R | 0.01 | 50V | Ceramic | AA |
| C226 | VCKYCY1HF103Z | R | 0.01 | 50V | Ceramic | AA |
| C227 | VCEA0A1HW475M | R | 4.7 | 50V | Electrolytic | AB |
| C231 | VCCCCY1HH3R0C | R | 3p | 50V | Ceramic | AA |
| C234 | VCKYCY1CF104Z | R | 0.1 | 16V | Ceramic | AA |
| C300 | VCEA0A1CW106M | R | 10 | 16V | Electrolytic | AB |
| C301 | VCEA0A1CW106M | R | 10 | 16V | Electrolytic | AB |
| C302 | VCKYCY1EB183K | R | 0.018 | 25V | Ceramic | AA |
| C303 | VCEA0A1HW475M | R | 4.7 | 50V | Electrolytic | AB |
| C304 | VCEA0A1CW106M | R | 10 | 16V | Electrolytic | AB |
| C305 | VCEA0A1CW106M | R | 10 | 16V | Electrolytic | AB |
| C306 | VCEA0A1CW106M | R | 10 | 16V | Electrolytic | AB |
| C307 | VCEA0A1CW106M | R | 10 | 16V | Electrolytic | AB |
| C308 | VCKYPA1HB472K | R | 4700p | 50V | Ceramic | AA |
| C309 | VCKYPA1HB472K | R | 4700p | 50V | Ceramic | AA |
| C312 | VCKYPA1HB391K | R | 390p | 50V | Ceramic | AA |
| C313 | VCKYPA1HB391K | R | 390p | 50V | Ceramic | AA |
| C314 | VCKYPA1HB102K | R | 1000p | 50V | Ceramic | AA |
| C315 | VCKYCY1CF474Z | R | 0.47 | 16V | Ceramic | AB |
| C319 | VCKYCY1CB333K | R | 0.033 | 16V | Ceramic | AA |
| C320 | VCKYCY1CB333K | R | 0.033 | 16V | Ceramic | AA |
| C321 | VCEA0A1CW106M | R | 10 | 16V | Electrolytic | AB |
| C322 | VCQYTA1HM333K | R | 0.033 | 50V | Mylar | AA |
| C323 | VCQYTA1HM333K | R | 0.033 | 50V | Mylar | AA |
| C326 | VCEA0A1CW106M | R | 10 | 16V | Electrolytic | AB |
| C327 | VCEA0A1CW106M | R | 10 | 16V | Electrolytic | AB |
| C331 | VCQYTA1HM103K | R | 0.01 | 50V | Mylar | AB |
| C332 | VCEA0A1HW104M | R | 0.1 | 50V | Electrolytic | AB |
| C333 | VCEA0A1CW106M | R | 10 | 16V | Electrolytic | AB |
| C334 | VCEA0A1CW106M | R | 10 | 16V | Electrolytic | AB |
| C335 | VCEA0A1CW106M | R | 10 | 16V | Electrolytic | AB |
| C336 | VCEA0A1CW106M | R | 10 | 16V | Electrolytic | AB |
| C337 | VCQYTA1HM103K | R | 0.01 | 50V | Mylar | AB |
| C338 | VCEA0A1HW104M | R | 0.1 | 50V | Electrolytic | AB |
| C339 | VCFYFA1HA684J | R | 0.68 | 50V | Mylar | AD |
| C340 | VCEA0A1CW106M | R | 10 | 16V | Electrolytic | AB |
| C341 | VCEA0A1CW106M | R | 10 | 16V | Electrolytic | AB |
| C342 | VCKYCY1CF104Z | R | 0.1 | 16V | Ceramic | AA |
| C343 | VCEA0A1CW107M | R | 100 | 16V | Electrolytic | AC |
| C349 | VCEA0A1CW106M | R | 10 | 16V | Electrolytic | AB |
| C350 | VCEA0A1CW106M | R | 10 | 16V | Electrolytic | AB |
| C352 | VCEA0A1CW476M | R | 47 | 16V | Electrolytic | AB |
| C353 | VCEA0A1CW337M | R | 330 | 16V | Electrolytic | AC |
| C354 | VCEA0A1CW337M | R | 330 | 16V | Electrolytic | AC |

| Ref. No. | Part No. | ★ | Description | Code |
|---|---|---|---|---|
| C355 | VCEA0A1CW476M | R | 47 16V Electrolytic | AB |
| C356 | VCEA0A0JW477M | R | 470 6.3V Electrolytic | AC |
| C357 | VCKYCY1HF103Z | R | 0.01 50V Ceramic | AA |
| C358 | VCQYTA1HM153K | R | 0.015 50V Mylar | AA |
| C360 | VCQYTA1HM393K | R | 0.039 50V Mylar | AB |
| C400 | VCEA0A1CW107M | R | 100 16V Electrolytic | AC |
| C401 | VCKYCY1HF103Z | R | 0.01 50V Ceramic | AA |
| C402 | VCKYCY1CF474Z | R | 0.47 16V Ceramic | AB |
| C403 | VCEA0A1CW106M | R | 10 16V Electrolytic | AB |
| C404 | VCKYCY1CF104Z | R | 0.1 16V Ceramic | AA |
| C405 | VCEA0A1CW106M | R | 10 16V Electrolytic | AB |
| C406 | VCE9GA1HW105M | R | 1 50V Electrolytic | AB |
| C407 | VCEA0A1CW106M | R | 10 16V Electrolytic | AB |
| C408 | VCCCCY1HH220J | R | 22p 50V Ceramic | AA |
| C409 | VCKYCY1HF103Z | R | 0.01 50V Ceramic | AA |
| C410 | VCEA0A1CW107M | R | 100 16V Electrolytic | AC |
| C411 | VCEA0A1CW227M | R | 220 16V Electrolytic | AC |
| C416 | VCEA0A1CW227M | R | 220 16V Electrolytic | AC |
| C424 | VCEA0A1CW477M | R | 470 16V Electrolytic | AC |
| C425 | VCEA0A1CW476M | R | 47 16V Electrolytic | AB |
| C426 | VCKYCY1HF103Z | R | 0.01 50V Ceramic | AA |
| C427 | VCKYCY1CF104Z | R | 0.1 16V Ceramic | AA |
| C428 | VCEA0A1CW106M | R | 10 16V Electrolytic | AB |
| C429 | VCKYCY1CF104Z | R | 0.1 16V Ceramic | AA |
| C430 | VCEA0A1CW106M | R | 10 16V Electrolytic | AB |
| C431 | VCKYCY1CF104Z | R | 0.1 16V Ceramic | AA |
| C432 | VCKYCY1CF104Z | R | 0.1 16V Ceramic | AA |
| C433 | VCEA0A1CW106M | R | 10 16V Electrolytic | AB |
| C434 | VCEA0A1CW106M | R | 10 16V Electrolytic | AB |
| C435 | VCEA0A1CW106M | R | 10 16V Electrolytic | AB |
| C436 | VCKYCY1HF103Z | R | 0.01 50V Ceramic | AA |
| C437 | VCEA0A1CW476M | R | 47 16V Electrolytic | AB |
| C438 | VCKYCY1CF104Z | R | 0.1 16V Ceramic | AA |
| C439 | VCKYCY1CF104Z | R | 0.1 16V Ceramic | AA |
| C450 | VCKYCY1HB103K | R | 0.01 50V Ceramic | AA |
| C451 | VCEA0A1HW474M | R | 0.47 50V Electrolytic | AB |
| C452 | VCFYFA1HA334J | R | 0.33 50V Mylar | AB |
| C453 | VCEA0A1CW226M | R | 22 16V Electrolytic | AB |
| C454 | VCEA0A1CW106M | R | 10 16V Electrolytic | AB |
| C455 | VCEA0A1HW105M | R | 1 50V Electrolytic | AB |
| C456 | VCEA0A1HW224M | R | 0.22 50V Electrolytic | AB |
| C457 | VCKYCY1CF104Z | R | 0.1 16V Ceramic | AA |
| C458 | VCKYCY1HF103Z | R | 0.01 50V Ceramic | AA |
| C459 | VCEA0A1CW107M | R | 100 16V Electrolytic | AC |
| C460 | VCKYCY1HB822K | R | 8200p 50V Ceramic | AB |
| C461 | VCKYCY1HF103Z | R | 0.01 50V Ceramic | AA |
| C462 | VCCCCY1HH561J | R | 560p 50V Ceramic | AB |
| C463 | VCKYCY1HF103Z | R | 0.01 50V Ceramic | AA |
| C468 | VCKYCY1HF103Z | R | 0.01 50V Ceramic | AA |
| C469 | VCEA0A1HW105M | R | 1 50V Electrolytic | AB |
| C478 | VCKYCY1HB152K | R | 1500p 50V Ceramic | AA |
| C500 | VCKYCY1HB222K | R | 2200p 50V Ceramic | AA |
| C501 | VCEACA1HC224M | R | 0.22 50V Electrolytic | AC |
| C505 | VCFPVC2DB474J | R | 0.47 200V Metallized Polypro Film | AE |
| C600 | VCEA0A1HW474M | R | 0.47 50V Electrolytic | AB |
| C601 | VCKYCY1HB822K | R | 8200p 50V Ceramic | AB |
| C602 | VCKYCY1HF103Z | R | 0.01 50V Ceramic | AA |
| C603 | VCEA0A1CW228M | R | 2200 16V Electrolytic | AD |
| C605 | VCQYTA1HM152J | R | 1500p 50V Mylar | AA |
| C620 | VCEA0A1CW476M | R | 47 16V Electrolytic | AB |
| C621 | VCEA0A1CW476M | R | 47 16V Electrolytic | AB |
| C622 | VCEA0A1CW476M | R | 47 16V Electrolytic | AB |
| C623 | VCEA0A1CW476M | R | 47 16V Electrolytic | AB |
| C624 | VCKYCY1CF334Z | R | 0.33 16V Ceramic | AA |
| C625 | VCEA0A1CW476M | R | 47 16V Electrolytic | AB |
| C626 | VCEA0A1AW476M | R | 47 10V Electrolytic | AB |
| C627 | VCEA0A1AW476M | R | 47 10V Electrolytic | AB |
| C630 | VCE9GA1CW106M | R | 10 16V Electrolytic | AB |
| C631 | VCEA0A1HW224M | R | 0.22 50V Electrolytic | AB |
| C632 | VCKYCY1HB102K | R | 1000p 50V Ceramic | AA |
| C633 | VCQYTA1HM182K | R | 1800p 50V Mylar | AA |
| C634 | VCEA0A1HW224M | R | 0.22 50V Electrolytic | AB |
| C635 | VCKYCY1HF103Z | R | 0.01 50V Ceramic | AA |
| C636 | VCEA0A1CW476M | R | 47 16V Electrolytic | AB |
| C637 | VCKYCY1HF103Z | R | 0.01 50V Ceramic | AA |
| C638 | VCQYTA1HM473J | R | 0.047 50V Mylar | AA |
| C639 | VCKYCY1HB392K | R | 3900p 50V Ceramic | AA |

| Ref. No. | Part No. | ★ | Description | Code |
|---|---|---|---|---|
| C800 | VCKYCY1HB222K | R | 2200p 50V Ceramic | AA |
| C801 | VCEA0A1HW224M | R | 0.22 50V Electrolytic | AB |
| C802 | VCCCCY1HH100D | R | 10p 50V Ceramic | AA |
| C803 | VCKYCY1HF103Z | R | 0.01 50V Ceramic | AA |
| C804 | VCEA0A1CW107M | R | 100 16V Electrolytic | AC |
| C805 | VCKYCY1CF104Z | R | 0.1 16V Ceramic | AA |
| C806 | VCKYCY1CF104Z | R | 0.1 16V Ceramic | AA |
| C807 | VCKYCY1CF104Z | R | 0.1 16V Ceramic | AA |
| C808 | VCCCCY1HH470J | R | 47p 50V Ceramic | AA |
| C809 | VCCCCY1HH470J | R | 47p 50V Ceramic | AA |
| C810 | VCCCCY1HH470J | R | 47p 50V Ceramic | AA |
| C812 | VCKYCY1HF103Z | R | 0.01 50V Ceramic | AA |
| C813 | VCEA0A1CW107M | R | 100 16V Electrolytic | AC |
| C815 | VCEA0A1CW106M | R | 10 16V Electrolytic | AB |
| C1000 | VCCCCY1HH560J | R | 56p 50V Ceramic | AA |
| C1001 | VCKYCY1HB222K | R | 2200p 50V Ceramic | AA |
| C1002 | VCEA0A1HW104M | R | 0.1 50V Electrolytic | AB |
| C1003 | VCKYCY1HF103Z | R | 0.01 50V Ceramic | AA |
| C1004 | VCKYCY1HF103Z | R | 0.01 50V Ceramic | AA |
| C1005 | VCEA0A0JW107M | R | 100 6.3V Electrolytic | AB |
| C1006 | VCKYCY1CF334Z | R | 0.33 16V Ceramic | AA |
| C1007 | VCKYCY1CF334Z | R | 0.33 16V Ceramic | AA |
| C1010 | VCEA0A0JW107M | R | 100 6.3V Electrolytic | AB |
| C1011 | VCCCCY1HH220J | R | 22p 50V Ceramic | AA |
| C1012 | VCCCCY1HH220J | R | 22p 50V Ceramic | AA |
| C1013 | VCCCCY1HH220J | R | 22p 50V Ceramic | AA |
| C1014 | VCCCCY1HH220J | R | 22p 50V Ceramic | AA |
| C1015 | VCEA0A1HW105M | R | 1 50V Electrolytic | AB |
| C1019 | VCKYCY1HF103Z | R | 0.01 50V Ceramic | AA |
| C1020 | VCEA0A1CW476M | R | 47 16V Electrolytic | AB |
| C1024 | VCKYCY1CF104Z | R | 0.1 16V Ceramic | AA |
| C1026 | VCKYCY1CF334Z | R | 0.33 16V Ceramic | AA |
| C1027 | VCKYCY1CF104Z | R | 0.1 16V Ceramic | AA |
| C1051 | VCQYTA1HM103K | R | 0.01 50V Mylar | AB |
| C1052 | VCEA0A1CW107M | R | 100 16V Electrolytic | AC |
| C1066 | VCEA0A1HW105M | R | 1 50V Electrolytic | AB |
| C1090 | VCEA0A1CW106M | R | 10 16V Electrolytic | AB |
| C1300 | VCEA0A1EW227M | R | 220 25V Electrolytic | AB |
| C1301 | VCEA0A1HW105M | R | 1 50V Electrolytic | AB |
| C1302 | VCEA0A1HW105M | R | 1 50V Electrolytic | AB |
| C1303 | VCQYTA1HM332K | R | 3300p 50V Mylar | AB |
| C1304 | VCQYTA1HM332K | R | 3300p 50V Mylar | AB |
| C1305 | VCEA0A1EW108M | R | 1000 25V Electrolytic | AD |
| C1306 | VCEA0A1EW108M | R | 1000 25V Electrolytic | AD |
| C1307 | VCEA0A1CW227M | R | 220 16V Electrolytic | AC |
| C1308 | VCEA0H1VW478M | R | 4700 35V Electrolytic | AL |
| C1309 | VCKYPA1HF103Z | R | 0.01 50V Ceramic | AA |
| C1310 | VCEA0A1CW106M | R | 10 16V Electrolytic | AB |
| C1311 | VCEA0A1CW106M | R | 10 16V Electrolytic | AB |
| C1312 | VCEA0A1CW106M | R | 10 16V Electrolytic | AB |
| C1313 | VCEA0A1EW227M | R | 220 25V Electrolytic | AB |
| C1320 | VCKYCY1HB102K | R | 1000p 50V Ceramic | AA |
| C1321 | VCEA0A1CW106M | R | 10 16V Electrolytic | AB |
| C1322 | VCKYCY1HB102K | R | 1000p 50V Ceramic | AA |
| C1323 | VCEA0A1CW106M | R | 10 16V Electrolytic | AB |
| C1324 | VCKYCY1HB102K | R | 1000p 50V Ceramic | AA |
| C1325 | VCEA0A1CW106M | R | 10 16V Electrolytic | AB |
| C1326 | VCKYCY1HB102K | R | 1000p 50V Ceramic | AA |
| C1327 | VCEA0A1CW106M | R | 10 16V Electrolytic | AB |
| C1328 | VCEA0A1CW106M | R | 10 16V Electrolytic | AB |
| C1329 | VCEA0A1CW106M | R | 10 16V Electrolytic | AB |
| C1330 | VCEA0A1CW106M | R | 10 16V Electrolytic | AB |
| C1331 | VCEA0A1CW106M | R | 10 16V Electrolytic | AB |
| C1332 | VCEA0A1AW227M | R | 220 10V Electrolytic | AB |
| C1333 | VCKYCY1HB102K | R | 1000p 50V Ceramic | AA |
| C1334 | VCEA0A1CW106M | R | 10 16V Electrolytic | AB |
| C1335 | VCKYCY1HB102K | R | 1000p 50V Ceramic | AA |
| C1336 | VCEA0A1CW106M | R | 10 16V Electrolytic | AB |
| C5400 | VCKYCY1CF104Z | R | 0.1 16V Ceramic | AA |
| C5401 | VCKYCY1CF104Z | R | 0.1 16V Ceramic | AA |
| C5402 | VCKYCY1CF104Z | R | 0.1 16V Ceramic | AA |
| C5403 | VCKYCY1CF104Z | R | 0.1 16V Ceramic | AA |
| C5407 | VCKYCY1HF103Z | R | 0.01 50V Ceramic | AA |
| C5408 | VCEA0A1CW107M | R | 100 16V Electrolytic | AC |
| C5409 | VCEA0A1CW106M | R | 10 16V Electrolytic | AB |
| C5410 | VCKYCY1HF103Z | R | 0.01 50V Ceramic | AA |
| C5411 | VCEA0A1CW107M | R | 100 16V Electrolytic | AC |
| C5413 | VCKYCY1HF103Z | R | 0.01 50V Ceramic | AA |

## RESISTORS

| Ref. No. | Part No. | ★ | Description | Code |
|---|---|---|---|---|
| RJ5 | VRS-CY1JF000J | R 0 | 1/16W Metal Oxide | AA |
| RJ6 | VRS-CY1JF000J | R 0 | 1/16W Metal Oxide | AA |
| RJ11 | VRS-CY1JF000J | R 0 | 1/16W Metal Oxide | AA |
| RJ12 | VRS-CY1JF000J | R 0 | 1/16W Metal Oxide | AA |
| RJ13 | VRS-CY1JF000J | R 0 | 1/16W Metal Oxide | AA |
| RJ14 | VRS-CY1JF000J | R 0 | 1/16W Metal Oxide | AA |
| RJ15 | VRS-CY1JF000J | R 0 | 1/16W Metal Oxide | AA |
| RJ17 | VRS-CY1JF000J | R 0 | 1/16W Metal Oxide | AA |
| RJ18 | VRS-CY1JF000J | R 0 | 1/16W Metal Oxide | AA |
| RJ20 | VRS-CY1JF000J | R 0 | 1/16W Metal Oxide | AA |
| RJ21 | VRS-CY1JF000J | R 0 | 1/16W Metal Oxide | AA |
| RJ22 | VRS-CY1JF000J | R 0 | 1/16W Metal Oxide | AA |
| RJ25 | VRS-CY1JF000J | R 0 | 1/16W Metal Oxide | AA |
| RJ26 | VRS-CY1JF000J | R 0 | 1/16W Metal Oxide | AA |
| RJ28 | VRS-CY1JF000J | R 0 | 1/16W Metal Oxide | AA |
| RJ29 | VRS-CY1JF000J | R 0 | 1/16W Metal Oxide | AA |
| RJ30 | VRS-CY1JF000J | R 0 | 1/16W Metal Oxide | AA |
| RJ32 | VRS-CY1JF000J | R 0 | 1/16W Metal Oxide | AA |
| RJ33 | VRS-CY1JF000J | R 0 | 1/16W Metal Oxide | AA |
| RJ34 | VRS-CY1JF000J | R 0 | 1/16W Metal Oxide | AA |
| RJ36 | VRS-CY1JF000J | R 0 | 1/16W Metal Oxide | AA |
| RJ37 | VRS-CY1JF000J | R 0 | 1/16W Metal Oxide | AA |
| RJ38 | VRS-CY1JF000J | R 0 | 1/16W Metal Oxide | AA |
| RJ39 | VRS-CY1JF000J | R 0 | 1/16W Metal Oxide | AA |
| RJ41 | VRS-CY1JF000J | R 0 | 1/16W Metal Oxide | AA |
| RJ42 | VRS-CY1JF000J | R 0 | 1/16W Metal Oxide | AA |
| RJ48 | VRS-CY1JF000J | R 0 | 1/16W Metal Oxide | AA |
| RJ49 | VRS-CY1JF000J | R 0 | 1/16W Metal Oxide | AA |
| RJ50 | VRS-CY1JF000J | R 0 | 1/16W Metal Oxide | AA |
| RJ55 | VRS-CY1JF000J | R 0 | 1/16W Metal Oxide | AA |
| RJ56 | VRS-CY1JF000J | R 0 | 1/16W Metal Oxide | AA |
| RJ57 | VRS-CY1JF000J | R 0 | 1/16W Metal Oxide | AA |
| RJ58 | VRS-CY1JF000J | R 0 | 1/16W Metal Oxide | AA |
| RJ59 | VRS-CY1JF000J | R 0 | 1/16W Metal Oxide | AA |
| RJ60 | VRS-CY1JF000J | R 0 | 1/16W Metal Oxide | AA |
| RJ61 | VRS-CY1JF000J | R 0 | 1/16W Metal Oxide | AA |
| RJ62 | VRS-CY1JF000J | R 0 | 1/16W Metal Oxide | AA |
| RJ63 | VRS-CY1JF000J | R 0 | 1/16W Metal Oxide | AA |
| RJ64 | VRS-CY1JF000J | R 0 | 1/16W Metal Oxide | AA |
| RJ91 | VRS-CY1JF000J | R 0 | 1/16W Metal Oxide | AA |
| RJ92 | VRS-CY1JF000J | R 0 | 1/16W Metal Oxide | AA |
| RJ93 | VRS-CY1JF000J | R 0 | 1/16W Metal Oxide | AA |
| RJ94 | VRS-CY1JF000J | R 0 | 1/16W Metal Oxide | AA |
| RJ95 | VRS-CY1JF000J | R 0 | 1/16W Metal Oxide | AA |
| RJ96 | VRS-CY1JF000J | R 0 | 1/16W Metal Oxide | AA |
| RJ97 | VRS-CY1JF000J | R 0 | 1/16W Metal Oxide | AA |
| RJ98 | VRS-CY1JF000J | R 0 | 1/16W Metal Oxide | AA |
| RJ99 | VRS-CY1JF000J | R 0 | 1/16W Metal Oxide | AA |
| RJ100 | VRS-CY1JF000J | R 0 | 1/16W Metal Oxide | AA |
| RJ101 | VRS-CY1JF000J | R 0 | 1/16W Metal Oxide | AA |
| RJ102 | VRS-CY1JF000J | R 0 | 1/16W Metal Oxide | AA |
| RJ103 | VRS-CY1JF000J | R 0 | 1/16W Metal Oxide | AA |
| RJ104 | VRS-CY1JF000J | R 0 | 1/16W Metal Oxide | AA |
| RJ105 | VRS-CY1JF000J | R 0 | 1/16W Metal Oxide | AA |
| R200 | VRS-CY1JF101J | R 100 | 1/16W Metal Oxide | AA |
| R201 | VRS-CY1JF101J | R 100 | 1/16W Metal Oxide | AA |
| R202 | VRS-CY1JF682J | R 6.8k | 1/16W Metal Oxide | AA |
| R203 | VRS-CY1JF222J | R 2.2k | 1/16W Metal Oxide | AA |
| R204 | VRS-CY1JF222J | R 2.2k | 1/16W Metal Oxide | AA |
| R205 | VRS-CY1JF122J | R 1.2k | 1/16W Metal Oxide | AA |
| R206 | VRS-CY1JF392J | R 3.9k | 1/16W Metal Oxide | AA |
| R207 | VRS-CY1JF122J | R 1.2k | 1/16W Metal Oxide | AA |
| R208 | VRS-CY1JF101J | R 100 | 1/16W Metal Oxide | AA |
| R209 | VRS-CY1JF392J | R 3.9k | 1/16W Metal Oxide | AA |
| R210 | VRS-CY1JF680J | R 68 | 1/16W Metal Oxide | AA |
| R211 | VRS-CY1JF122J | R 1.2k | 1/16W Metal Oxide | AA |
| R212 | VRS-CY1JF122J | R 1.2k | 1/16W Metal Oxide | AA |
| R213 | VRS-CY1JF101J | R 100 | 1/16W Metal Oxide | AA |
| R214 | VRS-CY1JF682J | R 6.8k | 1/16W Metal Oxide | AA |
| R215 | VRS-CY1JF222J | R 2.2k | 1/16W Metal Oxide | AA |
| R216 | VRS-CY1JF222J | R 2.2k | 1/16W Metal Oxide | AA |
| R217 | VRD-RA2BE103J | R 10k | 1/8W Carbon | AA |
| R218 | VRS-CY1JF103J | R 10k | 1/16W Metal Oxide | AA |
| R219 | VRS-CY1JF223J | R 22k | 1/16W Metal Oxide | AA |
| R220 | VRS-CY1JF223J | R 22k | 1/16W Metal Oxide | AA |
| R221 | VRS-CY1JF221J | R 220 | 1/16W Metal Oxide | AA |
| R222 | VRD-RA2BE333J | R 33k | 1/8W Carbon | AA |
| R223 | VRD-RA2BE101J | R 100 | 1/8W Carbon | AB |
| R224 | VRS-CY1JF331J | R 330 | 1/16W Metal Oxide | AA |
| R225 | VRD-RA2BE102J | R 1k | 1/8W Carbon | AA |
| R227 | VRS-CY1JF680J | R 68 | 1/16W Metal Oxide | AA |
| R316 | VRD-RA2BE333J | R 33k | 1/8W Carbon | AA |
| R333 | VRS-CY1JF222J | R 2.2k | 1/16W Metal Oxide | AA |
| R334 | VRS-CY1JF821J | R 820 | 1/16W Metal Oxide | AA |
| R335 | VRS-CY1JF224J | R 220k | 1/16W Metal Oxide | AA |
| R337 | VRS-CY1JF821J | R 820 | 1/16W Metal Oxide | AA |
| R338 | VRS-CY1JF222J | R 2.2k | 1/16W Metal Oxide | AA |
| R339 | VRS-CY1JF101J | R 100 | 1/16W Metal Oxide | AA |
| R340 | VRS-CY1JF101J | R 100 | 1/16W Metal Oxide | AA |
| R341 | VRS-CY1JF471J | R 470 | 1/16W Metal Oxide | AA |
| R343 | VRS-CY1JF471J | R 470 | 1/16W Metal Oxide | AA |
| R345 | VRS-CY1JF102J | R 1k | 1/16W Metal Oxide | AA |
| R364 | VRD-RM2HD101J | R 100 | 1/2W Carbon | AA |
| R381 | VRD-RA2BE101J | R 100 | 1/8W Carbon | AB |
| R382 | VRD-RA2BE101J | R 100 | 1/8W Carbon | AB |
| R400 | VRD-RA2BE101J | R 100 | 1/8W Carbon | AB |
| R401 | VRS-CY1JF221J | R 220 | 1/16W Metal Oxide | AA |
| R402 | VRS-CY1JF221J | R 220 | 1/16W Metal Oxide | AA |
| R403 | VRS-CY1JF101J | R 100 | 1/16W Metal Oxide | AA |
| R404 | VRS-CY1JF221J | R 220 | 1/16W Metal Oxide | AA |
| R405 | VRS-CY1JF221J | R 220 | 1/16W Metal Oxide | AA |
| R406 | VRS-CY1JF221J | R 220 | 1/16W Metal Oxide | AA |
| R407 | VRS-CY1JF221J | R 220 | 1/16W Metal Oxide | AA |
| R408 | VRS-CY1JF101J | R 100 | 1/16W Metal Oxide | AA |
| R409 | VRS-CY1JF101J | R 100 | 1/16W Metal Oxide | AA |
| R410 | VRD-RA2BE100J | R 10 | 1/8W Carbon | AA |
| R411 | VRD-RA2BE101J | R 100 | 1/8W Carbon | AB |
| R423 | VRS-CY1JF271J | R 270 | 1/16W Metal Oxide | AA |
| R424 | VRS-CY1JF680J | R 68 | 1/16W Metal Oxide | AA |
| R425 | VRS-CY1JF221J | R 220 | 1/16W Metal Oxide | AA |
| R431 | VRS-CY1JF221J | R 220 | 1/16W Metal Oxide | AA |
| R433 | VRS-CY1JF181J | R 180 | 1/16W Metal Oxide | AA |
| R434 | VRS-CY1JF101J | R 100 | 1/16W Metal Oxide | AA |
| R435 | VRS-CY1JF151J | R 150 | 1/16W Metal Oxide | AA |
| R436 | VRS-CY1JF101J | R 100 | 1/16W Metal Oxide | AA |
| R437 | VRS-CY1JF151J | R 150 | 1/16W Metal Oxide | AA |
| R438 | VRS-CY1JF101J | R 100 | 1/16W Metal Oxide | AA |
| R439 | VRS-CY1JF151J | R 150 | 1/16W Metal Oxide | AA |
| R440 | VRS-CY1JF101J | R 100 | 1/16W Metal Oxide | AA |
| R441 | VRS-CY1JF151J | R 150 | 1/16W Metal Oxide | AA |
| R442 | VRD-RA2BE101J | R 100 | 1/8W Carbon | AB |
| R443 | VRD-RA2BE151J | R 150 | 1/8W Carbon | AA |
| R444 | VRD-RA2BE102J | R 1k | 1/8W Carbon | AA |
| R445 | VRS-CY1JF123J | R 12k | 1/16W Metal Oxide | AA |
| R446 | VRS-CY1JF123J | R 12k | 1/16W Metal Oxide | AA |
| R447 | VRS-CY1JF223J | R 22k | 1/16W Metal Oxide | AA |
| R448 | VRS-CY1JF101J | R 100 | 1/16W Metal Oxide | AA |
| R449 | VRS-CY1JF471J | R 470 | 1/16W Metal Oxide | AA |
| R450 | VRD-RA2BE750J | R 75 | 1/8W Carbon | AA |
| R451 | VRS-CY1JF562J | R 5.6k | 1/16W Metal Oxide | AA |
| R452 | VRS-CY1JF223J | R 22k | 1/16W Metal Oxide | AA |
| R453 | VRD-RM2HD680J | R 68 | 1/2W Carbon | AA |
| R454 | VRS-CY1JF102J | R 1k | 1/16W Metal Oxide | AA |
| R455 | VRS-CY1JF103J | R 10k | 1/16W Metal Oxide | AA |
| R456 | VRS-CY1JF224J | R 220k | 1/16W Metal Oxide | AA |
| R457 | VRS-CY1JF101J | R 100 | 1/16W Metal Oxide | AA |
| R458 | VRS-CY1JF102J | R 1k | 1/16W Metal Oxide | AA |
| R459 | VRS-CY1JF223J | R 22k | 1/16W Metal Oxide | AA |
| R460 | VRS-CY1JF821J | R 820 | 1/16W Metal Oxide | AA |
| R461 | VRS-CY1JF102J | R 1k | 1/16W Metal Oxide | AA |
| R462 | VRS-CY1JF471J | R 470 | 1/16W Metal Oxide | AA |
| R463 | VRS-CY1JF471J | R 470 | 1/16W Metal Oxide | AA |
| R464 | VRS-CY1JF393J | R 39k | 1/16W Metal Oxide | AA |
| R465 | VRS-CY1JF182J | R 1.8k | 1/16W Metal Oxide | AA |
| R466 | VRS-CY1JF820J | R 82 | 1/16W Metal Oxide | AA |
| R467 | VRS-CY1JF393J | R 39k | 1/16W Metal Oxide | AA |
| R468 | VRS-CY1JF273J | R 27k | 1/16W Metal Oxide | AA |
| R469 | VRD-RA2EE471J | R 470 | 1/4W Carbon | AA |
| R470 | VRD-RA2BE101J | R 100 | 1/8W Carbon | AB |
| R471 | VRS-CY1JF272J | R 2.7k | 1/16W Metal Oxide | AA |
| R472 | VRS-CY1JF821J | R 820 | 1/16W Metal Oxide | AA |
| R473 | VRD-RA2BE100J | R 10 | 1/8W Carbon | AA |
| R474 | VRS-CY1JF151J | R 150 | 1/16W Metal Oxide | AA |
| R475 | VRS-CY1JF151J | R 150 | 1/16W Metal Oxide | AA |

| Ref. No. | Part No. | ★ | Description | Code |
|---|---|---|---|---|
| R477 | VRS-CY1JF151J | R 150 | 1/16W Metal Oxide | AA |
| R478 | VRS-CY1JF103J | R 10k | 1/16W Metal Oxide | AA |
| R479 | VRS-CY1JF151J | R 150 | 1/16W Metal Oxide | AA |
| R480 | VRS-CY1JF151J | R 150 | 1/16W Metal Oxide | AA |
| R481 | VRS-CY1JF151J | R 150 | 1/16W Metal Oxide | AA |
| R482 | VRS-CY1JF750J | R 75 | 1/16W Metal Oxide | AA |
| R483 | VRD-RA2BE101J | R 100 | 1/8W Carbon | AB |
| R484 | VRS-CY1JF103J | R 10k | 1/16W Metal Oxide | AA |
| R485 | VRS-CY1JF151J | R 150 | 1/16W Metal Oxide | AA |
| R486 | VRS-CY1JF151J | R 150 | 1/16W Metal Oxide | AA |
| R487 | VRD-RA2BE101J | R 100 | 1/8W Carbon | AB |
| R488 | VRD-RA2BE101J | R 100 | 1/8W Carbon | AB |
| R500 | VRS-CY1JF562F | R 5.6k | 1/16W Metal Oxide | AA |
| R504 | VRS-CY1JF101J | R 100 | 1/16W Metal Oxide | AA |
| R600 | VRD-RA2BE153J | R 15k | 1/8W Carbon | AA |
| R601 | VRS-CY1JF822J | R 8.2k | 1/16W Metal Oxide | AA |
| R602 | VRS-CY1JF102J | R 1k | 1/16W Metal Oxide | AA |
| R603 | VRD-RA2BE101J | R 100 | 1/8W Carbon | AB |
| R604 | VRS-CY1JF224J | R 220k | 1/16W Metal Oxide | AA |
| R605 | VRD-RA2BE474J | R 470k | 1/8W Carbon | AA |
| R606 | VRD-RA2EE395J | R 3.9M | 1/4W Carbon | AA |
| R608 | VRS-CY1JF102J | R 1k | 1/16W Metal Oxide | AA |
| R609 | VRS-CY1JF222J | R 2.2k | 1/16W Metal Oxide | AA |
| R610 | VRS-CY1JF102J | R 1k | 1/16W Metal Oxide | AA |
| R613 | VRS-CY1JF103J | R 10k | 1/16W Metal Oxide | AA |
| R614 | VRD-RA2BE103J | R 10k | 1/8W Carbon | AA |
| R617 | VRD-RA2EE561J | R 560 | 1/4W Carbon | AA |
| R620 | VRS-VV3AB470J | R 47 | 1W Metal Oxide | AA |
| R621 | VRS-VV3AB470J | R 47 | 1W Metal Oxide | AA |
| R623 | VRS-CY1JF103J | R 10k | 1/16W Metal Oxide | AA |
| R624 | VRD-RA2BE103J | R 10k | 1/8W Carbon | AA |
| R625 | VRS-CY1JF103J | R 10k | 1/16W Metal Oxide | AA |
| R626 | VRS-CY1JF472J | R 4.7k | 1/16W Metal Oxide | AA |
| R627 | VRS-CY1JF184J | R 180k | 1/16W Metal Oxide | AA |
| R628 | VRS-CY1JF471J | R 470 | 1/16W Metal Oxide | AA |
| R629 | VRS-CY1JF271J | R 270 | 1/16W Metal Oxide | AA |
| R630 | VRS-CY1JF271J | R 270 | 1/16W Metal Oxide | AA |
| R631 | VRS-CY1JF563J | R 56k | 1/16W Metal Oxide | AA |
| R632 | VRS-CY1JF223J | R 22k | 1/16W Metal Oxide | AA |
| R633 | VRD-RA2BE103J | R 10k | 1/8W Carbon | AA |
| R634 | VRS-CY1JF223J | R 22k | 1/16W Metal Oxide | AA |
| R635 | VRS-CY1JF684J | R 680k | 1/16W Metal Oxide | AA |
| R639 | VRS-CY1JF102J | R 1k | 1/16W Metal Oxide | AA |
| R800 | VRS-CY1JF333J | R 33k | 1/16W Metal Oxide | AA |
| R801 | VRD-RA2BE102J | R 1k | 1/8W Carbon | AA |
| R802 | VRS-CY1JF272J | R 2.7k | 1/16W Metal Oxide | AA |
| R803 | VRS-CY1JF561J | R 560 | 1/16W Metal Oxide | AA |
| R804 | VRS-CY1JF561J | R 560 | 1/16W Metal Oxide | AA |
| R805 | VRS-CY1JF561J | R 560 | 1/16W Metal Oxide | AA |
| R806 | VRS-CY1JF272J | R 2.7k | 1/16W Metal Oxide | AA |
| R807 | VRS-CY1JF101J | R 100 | 1/16W Metal Oxide | AA |
| R808 | VRS-CY1JF272J | R 2.7k | 1/16W Metal Oxide | AA |
| R809 | VRS-CY1JF101J | R 100 | 1/16W Metal Oxide | AA |
| R810 | VRS-CY1JF272J | R 2.7k | 1/16W Metal Oxide | AA |
| R811 | VRS-CY1JF101J | R 100 | 1/16W Metal Oxide | AA |
| R820 | VRD-RA2BE101J | R 100 | 1/8W Carbon | AB |
| R821 | VRD-RA2BE101J | R 100 | 1/8W Carbon | AB |
| R822 | VRS-CY1JF221J | R 220 | 1/16W Metal Oxide | AA |
| R823 | VRS-CY1JF221J | R 220 | 1/16W Metal Oxide | AA |
| R824 | VRS-CY1JF221J | R 220 | 1/16W Metal Oxide | AA |
| R825 | VRS-CY1JF221J | R 220 | 1/16W Metal Oxide | AA |
| R826 | VRS-CY1JF471J | R 470 | 1/16W Metal Oxide | AA |
| R828 | VRD-RA2BE271J | R 270 | 1/8W Carbon | AA |
| R1000 | VRS-CY1JF333J | R 33k | 1/16W Metal Oxide | AA |
| R1001 | VRS-CY1JF562J | R 5.6k | 1/16W Metal Oxide | AA |
| R1002 | VRS-CY1JF103J | R 10k | 1/16W Metal Oxide | AA |
| R1003 | VRS-CY1JF562J | R 5.6k | 1/16W Metal Oxide | AA |
| R1004 | VRS-CY1JF333J | R 33k | 1/16W Metal Oxide | AA |
| R1005 | VRS-CY1JF103J | R 10k | 1/16W Metal Oxide | AA |
| R1006 | VRS-CY1JF562J | R 5.6k | 1/16W Metal Oxide | AA |
| R1007 | VRS-CY1JF101J | R 100 | 1/16W Metal Oxide | AA |
| R1008 | VRD-RA2BE101J | R 100 | 1/8W Carbon | AB |
| R1009 | VRS-CY1JF562J | R 5.6k | 1/16W Metal Oxide | AA |
| R1010 | VRS-CY1JF101J | R 100 | 1/16W Metal Oxide | AA |
| R1011 | VRS-CY1JF103J | R 10k | 1/16W Metal Oxide | AA |
| R1013 | VRS-CY1JF101J | R 100 | 1/16W Metal Oxide | AA |
| R1014 | VRS-CY1JF101J | R 100 | 1/16W Metal Oxide | AA |
| R1015 | VRS-CY1JF103J | R 10k | 1/16W Metal Oxide | AA |

| Ref. No. | Part No. | ★ | Description | Code |
|---|---|---|---|---|
| R1016 | VRS-CY1JF101J | R 100 | 1/16W Metal Oxide | AA |
| R1017 | VRS-CY1JF103J | R 10k | 1/16W Metal Oxide | AA |
| R1018 | VRS-CY1JF103J | R 10k | 1/16W Metal Oxide | AA |
| R1019 | VRS-CY1JF101J | R 100 | 1/16W Metal Oxide | AA |
| R1020 | VRD-RA2BE562J | R 5.6k | 1/8W Carbon | AA |
| R1021 | VRS-CY1JF101J | R 100 | 1/16W Metal Oxide | AA |
| R1022 | VRD-RA2BE101J | R 100 | 1/8W Carbon | AB |
| R1023 | VRS-CY1JF101J | R 100 | 1/16W Metal Oxide | AA |
| R1028 | VRD-RA2BE103J | R 10k | 1/8W Carbon | AA |
| R1029 | VRS-CY1JF222J | R 2.2k | 1/16W Metal Oxide | AA |
| R1030 | VRD-RA2BE563J | R 56k | 1/8W Carbon | AA |
| R1031 | VRD-RA2BE563J | R 56k | 1/8W Carbon | AA |
| R1032 | VRS-CY1JF563J | R 56k | 1/16W Metal Oxide | AA |
| R1033 | VRS-CY1JF101J | R 100 | 1/16W Metal Oxide | AA |
| R1034 | VRS-CY1JF101J | R 100 | 1/16W Metal Oxide | AA |
| R1035 | VRS-CY1JF103J | R 10k | 1/16W Metal Oxide | AA |
| R1036 | VRD-RA2BE101J | R 100 | 1/8W Carbon | AB |
| R1037 | VRD-RA2BE101J | R 100 | 1/8W Carbon | AB |
| R1039 | VRD-RA2BE101J | R 100 | 1/8W Carbon | AB |
| R1040 | VRS-CY1JF332J | R 3.3k | 1/16W Metal Oxide | AA |
| R1041 | VRS-CY1JF101J | R 100 | 1/16W Metal Oxide | AA |
| R1042 | VRS-CY1JF101J | R 100 | 1/16W Metal Oxide | AA |
| R1043 | VRD-RA2BE101J | R 100 | 1/8W Carbon | AB |
| R1044 | VRS-CY1JF332J | R 3.3k | 1/16W Metal Oxide | AA |
| R1045 | VRS-CY1JF563J | R 56k | 1/16W Metal Oxide | AA |
| R1046 | VRS-CY1JF101J | R 100 | 1/16W Metal Oxide | AA |
| R1047 | VRS-CY1JF563J | R 56k | 1/16W Metal Oxide | AA |
| R1048 | VRS-CY1JF101J | R 100 | 1/16W Metal Oxide | AA |
| R1049 | VRS-CY1JF332J | R 3.3k | 1/16W Metal Oxide | AA |
| R1050 | VRS-CY1JF332J | R 3.3k | 1/16W Metal Oxide | AA |
| R1051 | VRS-CY1JF332J | R 3.3k | 1/16W Metal Oxide | AA |
| R1052 | VRS-CY1JF332J | R 3.3k | 1/16W Metal Oxide | AA |
| R1053 | VRS-CY1JF103J | R 10k | 1/16W Metal Oxide | AA |
| R1056 | VRS-CY1JF103J | R 10k | 1/16W Metal Oxide | AA |
| R1060 | VRS-CY1JF223J | R 22k | 1/16W Metal Oxide | AA |
| R1061 | VRS-CY1JF561J | R 560 | 1/16W Metal Oxide | AA |
| R1062 | VRS-CY1JF562J | R 5.6k | 1/16W Metal Oxide | AA |
| R1067 | VRS-CY1JF103J | R 10k | 1/16W Metal Oxide | AA |
| R1068 | VRD-RA2BE100J | R 10 | 1/8W Carbon | AA |
| R1090 | VRD-RA2BE102J | R 1k | 1/8W Carbon | AA |
| R1301 | VRS-CY1JF182J | R 1.8k | 1/16W Metal Oxide | AA |
| R1302 | VRS-CY1JF182J | R 1.8k | 1/16W Metal Oxide | AA |
| R1303 | VRD-RA2BE102J | R 1k | 1/8W Carbon | AA |
| R1304 | VRD-RA2BE102J | R 1k | 1/8W Carbon | AA |
| R1305 | VRS-CY1JF224J | R 220k | 1/16W Metal Oxide | AA |
| R1306 | VRD-RA2BE222J | R 2.2k | 1/8W Carbon | AA |
| R1307 | VRS-CY1JF223J | R 22k | 1/16W Metal Oxide | AA |
| R1308 | VRS-CY1JF122J | R 1.2k | 1/16W Metal Oxide | AA |
| R1309 | VRN-VV3DBR68J | R 0.68 | 2W Metal Film | AA |
| R1313 | VRS-CY1JF102J | R 1k | 1/16W Metal Oxide | AA |
| R1314 | VRD-RA2BE102J | R 1k | 1/8W Carbon | AA |
| R1315 | VRD-RA2BE822J | R 8.2k | 1/8W Carbon | AA |
| R1320 | VRS-CY1JF102J | R 1k | 1/16W Metal Oxide | AA |
| R1321 | VRS-CY1JF564J | R 560k | 1/16W Metal Oxide | AA |
| R1322 | VRS-CY1JF101J | R 100 | 1/16W Metal Oxide | AA |
| R1323 | VRS-CY1JF102J | R 1k | 1/16W Metal Oxide | AA |
| R1324 | VRS-CY1JF564J | R 560k | 1/16W Metal Oxide | AA |
| R1325 | VRS-CY1JF101J | R 100 | 1/16W Metal Oxide | AA |
| R1326 | VRS-CY1JF102J | R 1k | 1/16W Metal Oxide | AA |
| R1327 | VRS-CY1JF564J | R 560k | 1/16W Metal Oxide | AA |
| R1328 | VRS-CY1JF101J | R 100 | 1/16W Metal Oxide | AA |
| R1329 | VRS-CY1JF102J | R 1k | 1/16W Metal Oxide | AA |
| R1330 | VRS-CY1JF564J | R 560k | 1/16W Metal Oxide | AA |
| R1331 | VRS-CY1JF101J | R 100 | 1/16W Metal Oxide | AA |
| R1332 | VRS-CY1JF104J | R 100k | 1/16W Metal Oxide | AA |
| R1333 | VRD-RA2BE101J | R 100 | 1/8W Carbon | AB |
| R1334 | VRD-RA2BE561J | R 560 | 1/8W Carbon | AA |
| R1335 | VRS-CY1JF473J | R 47k | 1/16W Metal Oxide | AA |
| R1336 | VRS-CY1JF102J | R 1k | 1/16W Metal Oxide | AA |
| R1337 | VRS-CY1JF104J | R 100k | 1/16W Metal Oxide | AA |
| R1338 | VRD-RA2BE101J | R 100 | 1/8W Carbon | AB |
| R1339 | VRD-RA2BE561J | R 560 | 1/8W Carbon | AA |
| R1340 | VRS-CY1JF473J | R 47k | 1/16W Metal Oxide | AA |
| R1341 | VRS-CY1JF102J | R 1k | 1/16W Metal Oxide | AA |
| R1342 | VRD-RA2BE223J | R 22k | 1/8W Carbon | AA |
| R1343 | VRS-CY1JF102J | R 1k | 1/16W Metal Oxide | AA |
| R1344 | VRS-CY1JF564J | R 560k | 1/16W Metal Oxide | AA |
| R1345 | VRS-CY1JF101J | R 100 | 1/16W Metal Oxide | AA |

| Ref. No. | Part No. | ★ | Description | Code |
|---|---|---|---|---|
| R1346 | VRS-CY1JF102J | R | 1k 1/16W Metal Oxide | AA |
| R1347 | VRS-CY1JF564J | R | 560k 1/16W Metal Oxide | AA |
| R1348 | VRS-CY1JF101J | R | 100 1/16W Metal Oxide | AA |
| R1355 | VRS-CY1JF102J | R | 1k 1/16W Metal Oxide | AA |
| R5400 | VRS-CY1JF103J | R | 10k 1/16W Metal Oxide | AA |
| R5401 | VRS-CY1JF101J | R | 100 1/16W Metal Oxide | AA |
| R5402 | VRS-CY1JF103J | R | 10k 1/16W Metal Oxide | AA |
| R5403 | VRS-CY1JF103J | R | 10k 1/16W Metal Oxide | AA |
| R5404 | VRS-CY1JF101J | R | 100 1/16W Metal Oxide | AA |
| R5405 | VRS-CY1JF102J | R | 1k 1/16W Metal Oxide | AA |
| R5408 | VRS-CY1JF473J | R | 47k 1/16W Metal Oxide | AA |
| R5409 | VRS-CY1JF223J | R | 22k 1/16W Metal Oxide | AA |
| R5410 | VRS-CY1JF102J | R | 1k 1/16W Metal Oxide | AA |
| R5411 | VRS-CY1JF122J | R | 1.2k 1/16W Metal Oxide | AA |
| R5412 | VRS-CY1JF152J | R | 1.5k 1/16W Metal Oxide | AA |
| R5413 | VRS-CY1JF102J | R | 1k 1/16W Metal Oxide | AA |
| R5414 | VRD-RA2BE101J | R | 100 1/8W Carbon | AB |
| R5415 | VRS-CY1JF101J | R | 100 1/16W Metal Oxide | AA |
| R5416 | VRS-CY1JF563J | R | 56k 1/16W Metal Oxide | AA |
| R5417 | VRS-CY1JF273J | R | 27k 1/16W Metal Oxide | AA |
| R5418 | VRS-CY1JF221J | R | 220 1/16W Metal Oxide | AA |
| R5419 | VRS-CY1JF102J | R | 1k 1/16W Metal Oxide | AA |
| R5420 | VRS-CY1JF221J | R | 220 1/16W Metal Oxide | AA |
| R5421 | VRS-CY1JF102J | R | 1k 1/16W Metal Oxide | AA |
| R5423 | VRS-CY1JF473J | R | 47k 1/16W Metal Oxide | AA |
| R5424 | VRS-CY1JF473J | R | 47k 1/16W Metal Oxide | AA |

### MISCELLANEOUS PARTS

| | | | | |
|---|---|---|---|---|
| RDA601 | PRDAR0259PEFW | R | Heat Sink, IC601 | AE |
| RDA1300 | PRDAR0299PEFW | R | Heat Sink, IC1300 | AH |
| J400 | QTANJ0967CEZZ | R | Terminal | AP |
| J401 | QTANJ0527CEZZ | R | Terminal | AL |
| P500 | QPLGN0261CEZZ | R | Plug, 2 Pin | AB |
| P800 | QPLGN0841CEZZ | R | Plug, 8 Pin | AB |
| P1000 | QPLGN0661CEZZ | R | Plug, 6 Pin | AD |
| P1300 | QPLGN0461CEZZ | R | Plug, 4 Pin | AB |
| P1302 | QPLGN0261CEZZ | R | Plug, 2 Pin (29B-FX8) | AB |
| P1303 | QPLGN0361CEZZ | R | Plug, 3 Pin | AB |
| SC400 | QSOCD0430CEZZ | R | S-Video-In Socket | AE |
| SC801 | QSOCZ1040CEZZ | R | Socket, 10 Pin | AD |
| SC1000 | QSOCZ1040CEZZ | R | Socket, 10 Pin | AD |
| SC1001 | QSOCZ1040CEZZ | R | Socket, 10 Pin | AD |
| SC1002 | QSOCN1895REZZ | R | Socket, 18 Pin | AC |
| SLD1001 | PSLDM0233PEFW | R | Shield | AC |

## PWB-B DUNTKA123WEV9 POWER UNIT

### INTEGRATED CIRCUITS

| | | | | |
|---|---|---|---|---|
| IC700 | VHiTDA16846-1 | R | TDA16846 | AN |
| IC750 | VHiSE120N//-1 | R | SE120N | AG |
| IC1501 | VHiTA8427K/-1 | R | TA8427K | AL |
| IC1680 | VHiiR9358//-1 | R | IR9358 | AD |
| IC1700 | VHiMiP0253/-1 | R | MiP0253 | AM |
| IC1751 | RH-iX0037CEZZ | R | IX0037CE | AF |

### TRANSISTORS

| | | | | |
|---|---|---|---|---|
| Q700 | VSSPP11N60C-1 | R | SPP11N60C | AR |
| Q701 | VS2SC3198-Y-1 | R | 2SC3198 | AA |
| Q750 | VS2SC3198-Y-1 | R | 2SC3198 | AA |
| Q751 | VS2SA1266-Y-1 | R | 2SA1266 | AA |
| Q752 | VS2SC3198-G-1 | R | 2SC3198 | AA |
| Q753 | VS2SC1959Y/1E | R | 2SC1959Y | AC |
| Q1534 | VS2SC3198-Y-1 | R | 2SC3198 | AA |
| ⚠ Q1604 | VS2SC3198-Y-1 | R | 2SC3198 | AA |
| Q1622 | VS2SC3207//-1 | R | 2SC3207 | AC |
| ⚠ Q1630 | VS2SD2581++2E | R | 2SD2581 | AM |
| Q1670 | VS2SA1266-Y-1 | R | 2SA1266 | AA |
| Q1671 | VS2SD1830//1E | R | 2SD1830 | AF |
| Q1680 | VS2SC5022//1E | R | 2SC5022 | AG |
| Q1681 | VS2SC3198-Y-1 | R | 2SC3198 | AA |

### DIODES

| | | | | |
|---|---|---|---|---|
| D700 | RH-DX0336CEZZ | R | DX0336CE | AH |
| D701 | RH-DX0130CEZZ | R | DX0130CE | AE |
| D702 | RH-DX0321CEZZ | R | DX0321CE | AC |
| D703 | RH-DX0130CEZZ | R | DX0130CE | AE |
| D704 | RH-EX0636GEZZ | R | Zener Diode | AC |
| D705 | RH-DX0475CEZZ | R | DX0475CE | AB |
| D707 | RH-DX0475CEZZ | R | DX0475CE | AB |
| ⚠ D750 | RH-DX0475CEZZ | R | DX0475CE | AB |
| D751 | RH-DX0243CEZZ | R | DX0243CE | AF |
| D752 | RH-DX0373CEZZ | R | DX0373CE | AC |
| D753 | RH-DX0373CEZZ | R | DX0373CE | AC |
| D754 | RH-DX0452CEZZ | R | DX0452CE | AH |
| D755 | RH-DX0475CEZZ | R | DX0475CE | AB |
| D756 | RH-EX0152CEZZ | R | Zener Diode | AE |
| D757 | RH-EX0643GEZZ | R | Zener Diode | AB |
| D758 | RH-DX0475CEZZ | R | DX0475CE | AB |
| D759 | RH-DX0475CEZZ | R | DX0475CE | AB |
| D760 | RH-DX0475CEZZ | R | DX0475CE | AB |
| D761 | RH-DX0475CEZZ | R | DX0475CE | AB |
| D1534 | RH-DX0279CEZZ | R | DX0279CE | AB |
| D1535 | RH-EX0665GEZZ | R | Zener Diode, 25V | AA |
| D1576 | RH-DX0127CEZZ | R | DX0127CE | AC |
| D1590 | RH-EX0673GEZZ | R | Zener Diode | AB |
| D1610 | RH-DX0202CEZZ | R | DX0202CE | AD |
| ⚠ D1620 | RH-DX0475CEZZ | R | DX0475CE | AB |
| ⚠ D1621 | RH-EX0655GEZZ | R | Zener Diode | AB |
| D1631 | RH-DX0449CEZZ | R | DX0449CE | AK |
| D1651 | RH-DX0302CEZZ | R | DX0302CE | AC |
| D1659 | RH-DX0130CEZZ | R | DX0130CE | AE |
| D1664 | RH-EX0631GEZZ | R | Zener Diode, 9.1V | AA |
| D1680 | RH-DX0484CEZZ | R | DX0484CE | AE |
| D1681 | RH-DX0475CEZZ | R | DX0475CE | AB |
| D1682 | RH-DX0475CEZZ | R | DX0475CE | AB |
| D1683 | RH-DX0475CEZZ | R | DX0475CE | AB |
| D1684 | RH-DX0475CEZZ | R | DX0475CE | AB |
| D1700 | RH-DX0279CEZZ | R | DX0279CE | AB |
| D1701 | RH-DX0279CEZZ | R | DX0279CE | AB |
| D1702 | RH-DX0279CEZZ | R | DX0279CE | AB |
| D1703 | RH-DX0279CEZZ | R | DX0279CE | AB |
| D1750 | RH-DX0407CEZZ | R | DX0407CE | AD |
| D1751 | RH-EX1329CEZZ | R | Zener Diode, 5.6V | AD |
| D1755 | RH-DX0475CEZZ | R | DX0475CE | AB |
| D1756 | RH-EX0619GEZZ | R | Zener Diode, 6.2V | AA |
| ⚠ IC701 | RH-FX0008GEZZ | R | FX0008GE | AE |
| ⚠ IC702 | RH-FX0008GEZZ | R | FX0008GE | AE |
| ⚠ IC1701 | RH-FX0008GEZZ | R | FX0008GE | AE |

### PACKAGED CIRCUIT

| | | | | |
|---|---|---|---|---|
| PR700 | RMPTP0085CEZZ | R | Packaged Circuit | AL |

### COILS

| | | | | |
|---|---|---|---|---|
| ⚠ L701 | RCiLF0346CEZZ | R | Coil, CiLF0346CE | AL |
| L751 | RCiLP0268CEZZ | R | Coil, CiLP0268CE | AE |
| L1640 | RCiLZ0982CEZZ | R | Coil, CiLZ0982CE | AK |
| L1641 | RCiLZ1034CEZZ | R | Coil, CiLZ1034CE | AM |
| L1670 | RCiLZ1005CEZZ | R | Coil, CiLZ1005CE | AH |
| L1680 | RCiLZ0976CEZZ | R | Coil, CiLZ0976CE | AK |
| L1681 | VP-XF8R2K0000 | R | Peaking, 8.2µH | AB |

### TRANSFORMERS

| | | | | |
|---|---|---|---|---|
| ⚠ T700 | RTRNZ0201PEZZ | R | Transformer | AT |
| ⚠ T1602 | RTRNF0205PEZZ | R | H-Volt Transformer | BE |
| ⚠ T1620 | RTRNZ0731CEZZ | R | Transformer | AG |
| T1680 | RTRNZ0726CEZZ | R | Transformer | AM |
| ⚠ T1700 | RTRNZ0190PEZZ | R | Transformer | AH |

### CONTROL

| | | | | |
|---|---|---|---|---|
| R1759 | RVR-M4634GEZZ | R | Variable Resistor | AB |

### CAPACITORS

| | | | | |
|---|---|---|---|---|
| C701 | VCFYSB2EB224K | R | 0.22 250V Metallized Polypro Film | AD |
| C702 | RC-FZ086CGEZZ | R | 0.47 AC250V Metallized Polypro Film | AF |
| C703 | RC-FZ016SCEZZ | R | 0.1 AC250V Metallized Polypro Film | AE |
| C704 | RC-KZ0029CEZZ | R | 0.01 AC250V Ceramic | AC |

| Ref. No. | Part No. | ★ | Description | Code |
|---|---|---|---|---|
| C705 | RC-KZ0029CEZZ | R | 0.01 AC250V Ceramic | AC |
| C706 | RC-KZ0029CEZZ | R | 0.01 AC250V Ceramic | AC |
| C707 | RC-KZ0029CEZZ | R | 0.01 AC250V Ceramic | AC |
| C708 | VCQYTA1HM332J | R | 3300p 50V Mylar | AA |
| C709 | VCKYPA1HB102K | R | 1000p 50V Ceramic | AA |
| C710 | VCKYPA1HB101K | R | 100p 50V Ceramic | AA |
| C711 | VCFYFA1HA105J | R | 1 50V Mylar | AE |
| C712 | VCQPSC2JA333K | R | 0.033 630V Polypro Film | AB |
| C713 | RC-KZ0334CEZZ | R | 270p 2kV Ceramic | AC |
| C714 | RC-KZ0334CEZZ | R | 270p 2kV Ceramic | AC |
| C715 | RC-EZ0689CEZZ | R | 680 400V Electrolytic | BA |
| C716 | VCQYTA1HM102J | R | 1000p 50V Mylar | AA |
| C717 | VCEA0A1EW476M | R | 47 25V Electrolytic | AB |
| C718 | RC-KZ020SCEZZ | R | 2200p 4kV Ceramic | AE |
| ⚠ C719 | RC-KZ016SCEZZ | R | 470p 4kV Ceramic | AD |
| C720 | VCQYTA1HM681J | R | 680p 50V Mylar | AB |
| C721 | VCKYPA1HB102K | R | 1000p 50V Ceramic | AA |
| C727 | VCKYPA1HF103Z | R | 0.01 50V Ceramic | AA |
| C728 | VCKYPA1HF103Z | R | 0.01 50V Ceramic | AA |
| C732 | VCKYPA1HB221K | R | 220p 50V Ceramic | AA |
| C750 | RC-KZ1022CEZZ | R | 47p 1kV Ceramic | AC |
| C751 | VCKYPA2HB471K | R | 470p 500V Ceramic | AA |
| C752 | VCKYPA2HB471K | R | 470p 500V Ceramic | AA |
| C753 | VCKYPA2HB471K | R | 470p 500V Ceramic | AA |
| C754 | RC-KZ1022CEZZ | R | 47p 1kV Ceramic | AC |
| C755 | RC-EZ0004PEZZ | R | 2200 35V Electrolytic | AH |
| C756 | RC-EZ1226CEZZ | R | 300 16V Electrolytic | AK |
| C757 | RC-EZ1100CEZZ | R | 1000 25V Electrolytic | AF |
| C758 | RC-EZ0006PEZZ | R | 220 160V Electrolytic | AK |
| C760 | RC-EZ0006PEZZ | R | 220 160V Electrolytic | AK |
| C761 | VCQYTA1HM104J | R | 0.1 50V Mylar | AA |
| C763 | RC-EZ0308CEZZ | R | 330 160V Electrolytic | AF |
| C764 | VCKYPA2HB102K | R | 1000p 500V Ceramic | AA |
| C765 | VCKYPA1HB101K | R | 100p 50V Ceramic | AA |
| C767 | VCEA0A2AW475M | R | 4.7 100V Electrolytic | AB |
| C768 | VCKYPA1HF103Z | R | 0.01 50V Ceramic | AA |
| C771 | VCKYPA2HB221K | R | 220p 500V Ceramic | AA |
| C1512 | VCQYTA1HM563J | R | 0.056 50V Mylar | AB |
| C1513 | VCKYPA2HB391K | R | 390p 500V Ceramic | AA |
| C1514 | VCQYTA1HM392J | R | 3900p 50V Mylar | AA |
| C1521 | VCKYPA1HF103Z | R | 0.01 50V Ceramic | AA |
| C1525 | VCKYPA1HB391K | R | 390p 50V Ceramic | AA |
| C1526 | VCKYPA1HB391K | R | 390p 50V Ceramic | AA |
| C1534 | VCEA0A1HW107M | R | 100 50V Electrolytic | AB |
| C1535 | VCFYAA2AA224J | R | 0.22 100V Mylar | AD |
| C1536 | VCEA0A1HW474M | R | 0.47 50V Electrolytic | AB |
| C1537 | VCEA0A1VW108M | R | 1000 35V Electrolytic | AD |
| C1538 | VCEA0A1HW105M | R | 1 50V Electrolytic | AB |
| C1539 | VCQYTA1HM683J | R | 0.068 50V Mylar | AB |
| C1540 | VCKYPA1HB331K | R | 330p 50V Ceramic | AA |
| C1542 | VCEA0A1VW107M | R | 100 35V Electrolytic | AC |
| C1543 | VCQYTA1HM102J | R | 1000p 50V Mylar | AA |
| C1572 | VCEA0H1VW228M | R | 2200 35V Electrolytic | AH |
| C1575 | RC-QZ0037CEZZ | R | 0.01 100V Polypro Film | AB |
| C1576 | VCKYPA2HB102K | R | 1000p 500V Ceramic | AA |
| C1610 | VCFYSB2EB224K | R | 0.22 250V Metallized Polypro Film | AD |
| ⚠ C1619 | VCKYPA1HF103Z | R | 0.01 50V Ceramic | AA |
| C1623 | VCFPVC2DB474J | R | 0.47 200V Metallized Polypro Film | AE |
| C1625 | VCKYPA2HB561K | R | 560p 500V Ceramic | AA |
| C1627 | VCKYPA1HB102K | R | 1000p 50V Ceramic | AA |
| C1628 | VCQYTA2AA563K | R | 0.056 100V Mylar | AB |
| ⚠ C1632 | VCFPVC3CA103H | R | 0.01 1600V Metallized Polypro Film | AE |
| ⚠ C1633 | VCFPVC3CA912H | R | 9100p 1600V Metallized Polypro Film | AE |
| ⚠ C1635 | VCQPPC2JB223J | R | 0.022 630V Polypro Film | AC |
| ⚠ C1636 | VCQPPC2JB223J | R | 0.022 630V Polypro Film | AC |
| C1638 | VCKYPA1HB472K | R | 4700p 50V Ceramic | AA |
| C1639 | RC-KZ0033CEZZ | R | 150p 2kV Ceramic | AB |
| C1644 | RC-FZ0364CEZZ | R | 0.62 250V Metallized Polypro Film | AF |
| C1651 | VCKYPA2HB102K | R | 1000p 500V Ceramic | AA |
| C1652 | VCEA0A2EW336M | R | 33 250V Electrolytic | AF |
| C1655 | VCCSPA2HL221K | R | 220p 500V Ceramic | AB |
| C1659 | VCEA0A1HW106M | R | 10 50V Electrolytic | AB |
| C1670 | RC-FZ0377CEZZ | R | 4.7 100V Metallized Polypro Film | AF |
| C1680 | VCFPVC3CA822H | R | 8200p 1600V Metallized Polypro Film | AE |
| C1681 | RC-KZ0024CEZZ | R | 1000p 2kV Ceramic | AC |
| C1682 | VCKYPH3DB561K | R | 560p 2000V Ceramic | AC |
| C1683 | VCE9GA1HW335M | R | 3.3 50V Electrolytic | AB |
| C1684 | VCEA0A1VW106M | R | 10 35V Electrolytic | AB |
| C1695 | VCFYFA1HA224J | R | 0.22 50V Mylar | AB |
| C1696 | VCQYTA1HM103J | R | 0.01 50V Mylar | AA |
| C1700 | VCEA0A2GW475M | R | 4.7 400V Electrolytic | AE |
| C1701 | RC-KZ1022CEZZ | R | 47p 1kV Ceramic | AC |
| C1702 | VCQYTA1HM104J | R | 0.1 50V Mylar | AA |
| ⚠ C1703 | RC-KZ016SCEZZ | R | 0.1 AC250V Metallized Polypro Film | AD |
| C1704 | RC-KZ0029CEZZ | R | 0.01 AC250V Ceramic | AC |
| C1705 | RC-KZ0029CEZZ | R | 0.01 AC250V Ceramic | AC |
| C1706 | RC-KZ0029CEZZ | R | 0.01 AC250V Ceramic | AC |
| C1707 | RC-KZ0029CEZZ | R | 0.01 AC250V Ceramic | AC |
| C1708 | RC-KZ0029CEZZ | R | 0.01 AC250V Ceramic | AC |
| C1750 | VCKYPA2HB221K | R | 220p 500V Ceramic | AA |
| C1751 | VCEA0A1CW477M | R | 470 16V Electrolytic | AC |
| C1753 | VCEA0A1HW106M | R | 10 50V Electrolytic | AB |
| C1754 | VCFYFA1HA184J | R | 0.18 50V Mylar | AC |

## RESISTORS

| | | | | |
|---|---|---|---|---|
| R701 | VRD-RM2HD391J | R | 390 1/2W Carbon | AA |
| R702 | VRW-KQ41C1R0K | R | 1 15W Cement | AF |
| R703 | VRW-KQ41C1R0K | R | 1 15W Cement | AF |
| R704 | VRW-KQ41C1R0K | R | 1 15W Cement | AF |
| ⚠ R705 | VRC-UA2HG825K | R | 8.2M 1/2W Solid | AA |
| ⚠ R706 | VRC-UA2HG825K | R | 8.2M 1/2W Solid | AA |
| R707 | VRD-RA2BE563J | R | 56k 1/8W Carbon | AA |
| R708 | VRD-RA2BE822J | R | 8.2k 1/8W Carbon | AA |
| R709 | VRD-RM2HD224J | R | 220k 1/2W Carbon | AA |
| R710 | VRD-RM2HD224J | R | 220k 1/2W Carbon | AA |
| R711 | VRD-RA2BE153J | R | 15k 1/8W Carbon | AA |
| R712 | VRD-RM2HD155J | R | 1.5M 1/2W Carbon | AB |
| R713 | VRD-RM2HD155J | R | 1.5M 1/2W Carbon | AB |
| R714 | VRD-RA2BE150J | R | 15 1/8W Carbon | AA |
| R715 | VRD-RA2BE680J | R | 68 1/8W Carbon | AA |
| R716 | VRD-RA2BE393J | R | 39k 1/8W Carbon | AA |
| R717 | VRS-KT3LB823J | R | 82k 3W Metal Oxide | AC |
| R718 | VRD-RA2BE103J | R | 10k 1/8W Carbon | AA |
| R720 | VRD-RM2HD105J | R | 1M 1/2W Carbon | AA |
| R721 | VRD-RM2HD123J | R | 12k 1/2W Carbon | AA |
| R723 | VRD-RM2HD102J | R | 1k 1/2W Carbon | AA |
| R725 | VRD-RM2HD124J | R | 120k 1/2W Carbon | AA |
| R726 | VRD-RM2HD124J | R | 120k 1/2W Carbon | AA |
| R750 | VRD-RA2BE102J | R | 1k 1/8W Carbon | AA |
| R751 | VRD-RA2BE102J | R | 1k 1/8W Carbon | AA |
| R752 | VRD-RA2BE273J | R | 27k 1/8W Carbon | AA |
| R753 | VRD-RA2BE102J | R | 1k 1/8W Carbon | AA |
| R754 | VRD-RA2BE102J | R | 1k 1/8W Carbon | AA |
| R755 | VRD-RA2BE102J | R | 1k 1/8W Carbon | AA |
| R756 | VRD-RA2BE102J | R | 1k 1/8W Carbon | AA |
| R757 | VRD-RA2BE103J | R | 10k 1/8W Carbon | AA |
| R758 | VRD-RA2BE103J | R | 10k 1/8W Carbon | AA |
| R759 | VRD-RA2BE102J | R | 1k 1/8W Carbon | AA |
| R761 | VRD-RA2BE332J | R | 3.3k 1/8W Carbon | AA |
| R762 | VRD-RA2BE562J | R | 5.6k 1/8W Carbon | AA |
| R763 | VRD-RA2BE153J | R | 15k 1/8W Carbon | AA |
| R1508 | VRD-RA2BE102J | R | 1k 1/8W Carbon | AA |
| ⚠ R1522 | VRG-RL2HB220J | R | 22 1/2W Fuse Resistor | AB |
| R1523 | VRD-RA2BE124J | R | 120k 1/8W Carbon | AA |
| R1524 | VRD-RA2BE473J | R | 47k 1/8W Carbon | AA |
| R1531 | VRN-SV2HB2R7J | R | 2.7 1/2W Metal Film | AA |
| R1532 | VRN-SV2HB2R7J | R | 2.7 1/2W Metal Film | AA |
| R1533 | VRN-SV2HB2R7J | R | 2.7 1/2W Metal Film | AA |
| R1534 | VRD-RA2BE151J | R | 150 1/8W Carbon | AA |

| Ref. No. | Part No. | ★ | Description | Code |
|---|---|---|---|---|
| R1535 | VRD-RA2BE101J | R | 100 1/8W Carbon | AB |
| R1538 | VRD-RM2HD123J | R | 12k 1/2W Carbon | AA |
| R1539 | VRD-RA2BE223J | R | 22k 1/8W Carbon | AA |
| R1540 | VRD-RA2BE274J | R | 270k 1/8W Carbon | AA |
| R1541 | VRS-VV3AB391J | R | 390 1W Metal Oxide | AA |
| R1542 | VRD-RA2BE563J | R | 56k 1/8W Carbon | AA |
| R1543 | VRD-RA2BE561J | R | 560 1/8W Carbon | AA |
| R1545 | VRS-VV3AB822J | R | 8.2k 1W Metal Oxide | AA |
| R1556 | VRD-RA2BE394J | R | 390k 1/8W Carbon | AA |
| R1557 | VRD-RA2BE273J | R | 27k 1/8W Carbon | AA |
| R1558 | VRD-RA2BE333J | R | 33k 1/8W Carbon | AA |
| R1559 | VRD-RA2BE102J | R | 1k 1/8W Carbon | AA |
| R1576 | VRN-VV3AB1R0J | R | 1 1W Metal Film | AA |
| R1610 | VRS-VV3DB103J | R | 10k 2W Metal Oxide | AA |
| ⚠ R1617 | VRD-RA2BE153J | R | 15k 1/8W Carbon | AA |
| ⚠ R1618 | VRD-RA2BE153J | R | 15k 1/8W Carbon | AA |
| ⚠ R1619 | VRD-RA2BE472J | R | 4.7k 1/8W Carbon | AA |
| ⚠ R1620 | VRD-RA2BE101J | R | 100 1/8W Carbon | AB |
| R1621 | VRD-RA2BE103J | R | 10k 1/8W Carbon | AA |
| R1622 | VRS-SU2HB102J | R | 1k 1/2W Metal Oxide | AA |
| R1623 | VRD-RM2HD393J | R | 39k 1/2W Carbon | AA |
| R1624 | VRS-KT3LB122J | R | 1.2k 3W Metal Oxide | AC |
| R1625 | VRS-VV3AB562J | R | 5.6k 1W Metal Oxide | AA |
| R1626 | VRD-RA2BE561J | R | 560 1/8W Carbon | AA |
| R1627 | VRD-RA2BE681J | R | 680 1/8W Carbon | AA |
| R1629 | VRW-KQ41C3R3K | R | 3.3 15W Cement | AG |
| R1638 | VRD-RM2HD150J | R | 15 1/2W Carbon | AA |
| R1647 | VRS-KT3LB122J | R | 1.2k 3W Metal Oxide | AC |
| ⚠ R1651 | RR-XZ0029CEZZ | R | 3.3 1/2W Fuse Resistor | AB |
| R1654 | VRD-RM2HD102J | R | 1k 1/2W Carbon | AA |
| R1655 | VRD-RM2HD472J | R | 4.7k 1/2W Carbon | AA |
| R1659 | VRN-VV3DBR82J | R | 0.82 2W Metal Film | AB |
| R1660 | VRD-RM2HD101J | R | 100 1/2W Carbon | AA |
| R1661 | VRD-RM2HD101J | R | 100 1/2W Carbon | AA |
| R1662 | VRD-RM2HD103J | R | 10k 1/2W Carbon | AA |
| R1670 | VRD-RA2BE102J | R | 1k 1/8W Carbon | AA |
| R1671 | VRD-RA2BE103J | R | 10k 1/8W Carbon | AA |
| R1672 | VRD-RA2BE472J | R | 4.7k 1/8W Carbon | AA |
| R1673 | VRD-RA2EE822J | R | 8.2k 1/4W Carbon | AA |
| R1674 | VRD-RM2HD182J | R | 1.8k 1/2W Carbon | AA |
| R1675 | VRN-VV3DBR33J | R | 0.33 2W Metal Film | AA |
| R1680 | VRS-SV3LB154J | R | 150k 3W Metal Oxide | AC |
| R1681 | VRS-KT3LB104J | R | 100k 3W Metal Oxide | AC |
| R1682 | VRC-MA2HG333K | R | 33k 1/2W Solid | AA |
| R1683 | VRD-RA2BE332J | R | 3.3k 1/8W Carbon | AA |
| R1684 | VRD-RA2BE681J | R | 680 1/8W Carbon | AA |
| R1685 | VRS-VV3AB181J | R | 180 1W Metal Oxide | AA |
| R1686 | VRD-RA2BE103J | R | 10k 1/8W Carbon | AA |
| R1687 | VRD-RA2BE103J | R | 10k 1/8W Carbon | AA |
| R1688 | VRD-RA2BE473J | R | 47k 1/8W Carbon | AA |
| R1689 | VRD-RA2BE823J | R | 82k 1/8W Carbon | AA |
| R1690 | VRD-RA2BE822J | R | 8.2k 1/8W Carbon | AA |
| R1691 | VRD-RA2BE823J | R | 82k 1/8W Carbon | AA |
| R1695 | VRD-RA2BE224J | R | 220k 1/8W Carbon | AA |
| R1696 | VRD-RA2BE394J | R | 390k 1/8W Carbon | AA |
| R1700 | VRW-KP3HC330J | R | 33 5W Cement | AD |
| R1752 | VRD-RA2BE102J | R | 1k 1/8W Carbon | AA |
| R1753 | VRS-VV3DB153J | R | 15k 2W Metal Oxide | AA |
| R1754 | VRD-RA2EE185J | R | 1.8M 1/4W Carbon | AA |
| R1755 | VRD-RA2BE103J | R | 10k 1/8W Carbon | AA |
| R1756 | VRD-RA2EE334J | R | 330k 1/4W Carbon | AA |
| R1757 | VRS-VV3AB103J | R | 10k 1W Metal Oxide | AA |
| R1760 | VRD-RA2EE104J | R | 100k 1/4W Carbon | AA |
| R1761 | VRD-RA2EE124J | R | 120k 1/4W Carbon | AA |

### BALUNES

| | | | | |
|---|---|---|---|---|
| FB700 | RBLN-0037CEZZ | R | Balun, BLN-0037CE | AB |
| FB701 | RBLN-0037CEZZ | R | Balun, BLN-0037CE | AB |
| FB702 | RBLN-0037CEZZ | R | Balun, BLN-0037CE | AB |
| FB703 | RBLN-0037CEZZ | R | Balun, BLN-0037CE | AB |
| FB750 | RBLN-0037CEZZ | R | Balun, BLN-0037CE | AB |
| FB751 | RBLN-0037CEZZ | R | Balun, BLN-0037CE | AB |
| FB752 | RBLN-0037CEZZ | R | Balun, BLN-0037CE | AB |
| FB753 | RBLN-0037CEZZ | R | Balun, BLN-0037CE | AB |
| FB754 | RBLN-0037CEZZ | R | Balun, BLN-0037CE | AB |
| FB755 | RBLN-0037CEZZ | R | Balun, BLN-0037CE | AB |
| FB756 | RBLN-0037CEZZ | R | Balun, BLN-0037CE | AB |
| FB757 | RBLN-0037CEZZ | R | Balun, BLN-0037CE | AB |
| FB1500 | RBLN-0037CEZZ | R | Balun, BLN-0037CE | AB |
| FB1630 | RBLN-0047CEZZ | R | Balun, BLN-0047CE | AB |
| FB1631 | RBLN-0047CEZZ | R | Balun, BLN-0047CE | AB |
| FB1700 | RBLN-0037CEZZ | R | Balun, BLN-0037CE | AB |
| FB1750 | RBLN-0037CEZZ | R | Balun, BLN-0037CE | AB |

### MISCELLANEOUS PARTS

| | | | | |
|---|---|---|---|---|
| | PZETM0016CEZZ | R | Insulator | AB |
| | QCNW-2428PEZZ | R | Connecting Cord | AC |
| RDA700 | PRDAR0304PEFW | R | Heat Sink, Q700 | AH |
| RDA701 | PRDAR0139PEFW | R | Heat Sink, D700 | AC |
| RDA750 | PRDAR0160PEFW | R | Heat Sink, D754 | AF |
| RDA1501 | PRDAR0213PEFW | R | Heat Sink, IC1501 | AM |
| RDA1630 | PRDAR0249PEFW | R | Heat Sink, Q1630 | AL |
| RDA1631 | PRDAR0198PEFW | R | Heat Sink, D1631 | AG |
| RDA1671 | PRDAR0277PEFW | R | Heat Sink, Q1671 | AF |
| RDA1680 | PRDAR0135PEFW | R | Heat Sink, Q1680 | AE |
| P700 | QPLGN0360CEZZ | R | Plug, 3 Pin | AC |
| P701 | QPLGN0260CEZZ | R | Plug, 2 Pin | AC |
| P750 | QPLGZ1040CEZZ | R | Plug, 10 Pin | AE |
| P1500 | QPLGN0160FJZZ | R | Plug, 5 Pin | AD |
| P1501 | QPLGZ1040CEZZ | R | Plug, 10 Pin | AE |
| P1530 | QPLGN0261CEZZ | R | Plug, 2 Pin | AB |
| P1650 | QPLGN0741CEZZ | R | Plug, 7 Pin | AC |
| P1750 | QPLGZ1040CEZZ | R | Plug, 10 Pin | AE |
| ⚠ RY700 | RRLYJ0093CEZZ | R | Relay | AG |
| SG1680 | QSPGH0025CEZZ | R | Spark Gap | AC |
| SG1681 | QSPGH0025CEZZ | R | Spark Gap | AC |

## PWB-C DUNTKA075WEW3 CRT UNIT

### INTEGRATED CIRCUIT

| | | | | |
|---|---|---|---|---|
| IC850 | VHiTDA6103Q-1 | R | TDA6103Q, R.G.B Out | AL |

### TRANSISTORS

| | | | | |
|---|---|---|---|---|
| Q850 | VS2SA1266-Y-1 | R | 2SA1266 | AA |
| Q851 | VS2SC3198-Y-1 | R | 2SC3198 | AA |
| Q1504 | VS2SC3198-Y-1 | R | 2SC3198 | AA |
| Q1505 | VS2SA1266-Y-1 | R | 2SA1266 | AA |
| Q1506 | VS2SA1964E/-1 | R | 2SA1964E | AF |
| Q1507 | VS2SC5248E/-1 | R | 2SC5248E | AE |

### DIODES

| | | | | |
|---|---|---|---|---|
| D850 | RH-DX0220CEZZ | R | DX0220CE | AB |
| D851 | RH-DX0220CEZZ | R | DX0220CE | AB |
| D852 | RH-DX0220CEZZ | R | DX0220CE | AB |
| D853 | RH-EX0647GEZZ | R | Zener Diode, 15V | AA |
| D854 | RH-DX0475CEZZ | R | DX0475CE | AB |
| D855 | RH-DX0475CEZZ | R | DX0475CE | AB |
| D860 | RH-DX0475CEZZ | R | DX0475CE | AB |
| D890 | RH-EX0615GEZZ | R | Zener Diode | AA |
| D1502 | RH-DX0475CEZZ | R | DX0475CE | AB |
| D1503 | RH-DX0475CEZZ | R | DX0475CE | AB |
| D1506 | RH-DX0487CEZZ | R | DX0487CE | AC |
| D1507 | RH-DX0487CEZZ | R | DX0487CE | AC |
| D1508 | RH-DX0475CEZZ | R | DX0475CE | AB |

### COIL

| | | | | |
|---|---|---|---|---|
| L854 | VP-MK151K0000 | R | Peaking, 150µH | AB |

### CAPACITORS

| | | | | | |
|---|---|---|---|---|---|
| C850 | VCFYSB2EB823J | R | 0.082 | 250V | Mylar | AD |
| C851 | RC-KZ018JCEZZ | R | Capacitor | | | AC |
| C852 | VCEA0A1CW106M | R | 10 | 16V | Electrolytic | AB |
| C853 | VCFYFA1HA224J | R | 0.22 | 50V | Mylar | AB |
| C854 | VCEA0A1AW108M | R | 1000 | 10V | Electrolytic | AC |
| C855 | VCEA0A2EW106M | R | 10 | 250V | Electrolytic | AD |
| C856 | VCEA0A1CW476M | R | 47 | 16V | Electrolytic | AB |
| C1501 | VCEA0A1CW476M | R | 47 | 16V | Electrolytic | AB |
| C1506 | VCKYPA1HF103Z | R | 0.01 | 50V | Ceramic | AA |
| C1508 | VCKYPA2HB472K | R | 4700p | 500V | Ceramic | AB |
| C1509 | VCKYPA2HB472K | R | 4700p | 500V | Ceramic | AB |

| Ref. No. | Part No. | ★ | Description | Code |
|---|---|---|---|---|
| C1510 | VCKYPA1HF103Z | R | 0.01 50V Ceramic | AA |
| C1511 | VCKYPA1HF103Z | R | 0.01 50V Ceramic | AA |
| C1515 | VCEA0A1CW476M | R | 47 16V Electrolytic | AB |
| C1516 | VCEA0A1CW476M | R | 47 16V Electrolytic | AB |
| C1517 | VCEA0A2AW106M | R | 10 100V Electrolytic | AC |
| C1518 | VCCSPA2HL560K | R | 56p 500V Ceramic | AA |
| C1519 | VCEA4A2CN106M | R | 10 160V Electrolytic | AC |
| | **RESISTORS** | | | |
| R850 | VRD-RA2BE152J | R | 1.5k 1/8W Carbon | AA |
| R851 | VRD-RA2BE152J | R | 1.5k 1/8W Carbon | AA |
| R852 | VRD-RA2BE152J | R | 1.5k 1/8W Carbon | AA |
| R853 | VRD-RA2BE272J | R | 2.7k 1/8W Carbon | AA |
| R854 | VRD-RA2BE272J | R | 2.7k 1/8W Carbon | AA |
| R855 | VRD-RA2BE272J | R | 2.7k 1/8W Carbon | AA |
| R856 | VRD-RM2HD224J | R | 220k 1/2W Carbon | AA |
| R857 | VRD-RM2HD224J | R | 220k 1/2W Carbon | AA |
| R858 | VRD-RM2HD224J | R | 220k 1/2W Carbon | AA |
| R862 | VRC-MA2HG152K | R | 1.5k 1/2W Solid | AA |
| R863 | VRC-MA2HG152K | R | 1.5k 1/2W Solid | AA |
| R864 | VRC-MA2HG152K | R | 1.5k 1/2W Solid | AA |
| R868 | VRD-RA2BE272J | R | 2.7k 1/8W Carbon | AA |
| R869 | VRD-RA2BE562J | R | 5.6k 1/8W Carbon | AA |
| R870 | VRD-RA2BE223J | R | 22k 1/8W Carbon | AA |
| R871 | VRD-RA2BE223J | R | 22k 1/8W Carbon | AA |
| R872 | VRD-RA2EE680J | R | 68 1/4W Carbon | AA |
| R873 | VRD-RM2HD224J | R | 220k 1/2W Carbon | AA |
| R874 | VRD-RM2HD184J | R | 180k 1/2W Carbon | AA |
| R875 | VRD-RM2HD184J | R | 180k 1/2W Carbon | AA |
| R876 | VRD-RM2HD184J | R | 180k 1/2W Carbon | AA |
| R877 | VRD-RA2BE103J | R | 10k 1/8W Carbon | AA |
| R880 | VRD-RM2HD332J | R | 3.3k 1/2W Carbon | AA |
| R1511 | VRD-RA2BE101J | R | 100 1/8W Carbon | AB |
| ⚠ R1513 | VRS-VV3AB471J | R | 470 1W Metal Oxide | AA |
| R1514 | VRD-RA2BE100J | R | 10 1/8W Carbon | AA |
| R1515 | VRD-RA2BE820J | R | 82 1/8W Carbon | AA |
| R1516 | VRD-RA2BE820J | R | 82 1/8W Carbon | AA |
| R1517 | VRD-RA2BE122J | R | 1.2k 1/8W Carbon | AA |
| R1518 | VRD-RA2BE683J | R | 68k 1/8W Carbon | AA |
| R1519 | VRD-RA2BE123J | R | 12k 1/8W Carbon | AA |
| R1520 | VRD-RA2BE683J | R | 68k 1/8W Carbon | AA |
| R1521 | VRD-RA2BE122J | R | 1.2k 1/8W Carbon | AA |
| R1525 | VRD-RA2EE560J | R | 56 1/4W Carbon | AA |
| R1526 | VRD-RA2EE560J | R | 56 1/4W Carbon | AA |
| R1527 | VRD-RM2HD1R5J | R | 1.5 1/2W Carbon | AA |
| R1528 | VRD-RM2HD1R5J | R | 1.5 1/2W Carbon | AA |
| ⚠ R1529 | VRS-VV3DB221J | R | 220 2W Metal Oxide | AA |
| R1530 | VRD-RA2BE222J | R | 2.2k 1/8W Carbon | AA |
| | **BALUNES** | | | |
| FB850 | RBLN-0037CEZZ | R | Balun, BLN-0037CE | AB |
| FB1501 | RBLN-0020CEZZ | R | Balun, BLN-0020CE | AB |
| | **MISCELLANEOUS PARTS** | | | |
| RDA850 | PRDAR0248PEFW | R | Heat Sink, IC850 | AF |
| RDA1506 | PRDAR0083PEFW | R | Heat Sink, Q1506 | AD |
| RDA1507 | PRDAR0083PEFW | R | Heat Sink, Q1507 | AD |
| P852 | QPLGN0241CEZZ | R | Plug, 2 Pin | AA |
| P854 | QPLGN0741CEZZ | R | Plug, 7 Pin | AC |
| P856 | QTiPM0083CEZZ | R | Tip | AB |
| P858 | QTiPM0083CEZZ | R | Tip | AB |
| P860 | QPLGN0841CEZZ | R | Plug, 8 Pin | AB |
| SC850 | QSOCV0936CEZZ | R | Socket, 12 Pin | AM |

## PWB-D DUNTK9668WEW4 NICAM UNIT

| | | | | |
|---|---|---|---|---|
| | **INTEGRATED CIRCUITS** | | | |
| IC2300 | VHiTDA9874A-1 | R | TDA9874AH | BB |
| IC2301 | VHiTDA9808T-1 | R | TDA9808T | AR |
| | **TRANSISTORS** | | | |
| Q2301 | VS2SD601A//-1 | R | 2SD601A | AC |
| Q2302 | VS2SC2735//1E | R | 2SC2735 | AC |
| Q2303 | VS2SC2735//1E | R | 2SC2735 | AC |
| | **PACKAGED CIRCUIT** | | | |
| X2301 | RCRSB0295CEZZ | R | Crystal, CRSB0295CE | AH |
| | **FILTER** | | | |
| SF2300 | RFiLC0016PEZZ | R | Filter, FiLC0016PE | AS |
| | **COILS** | | | |
| L2340 | VP-XF220K0000 | R | Peaking, 22µH | AB |
| L2341 | VP-XF1R2K0000 | R | Peaking, 1.2µH | AB |
| T2300 | RCiLD0231CEZZ | R | Detection Coil | AF |
| | **CAPACITORS** | | | |
| C2301 | VCKYCY1HF103Z | R | 0.01 50V Ceramic | AA |
| C2302 | VCKYCY1HF103Z | R | 0.01 50V Ceramic | AA |
| C2303 | VCFYFA1HA474J | R | 0.47 50V Mylar | AC |
| C2304 | VCFYFA1HA474J | R | 0.47 50V Mylar | AC |
| C2313 | VCFYFA1HA474J | R | 0.47 50V Mylar | AC |
| C2314 | VCCCCY1HH470J | R | 47p 50V Ceramic | AA |
| C2315 | VCKYCY1HF103Z | R | 0.01 50V Ceramic | AA |
| C2316 | VCCCCY1HH470J | R | 47p 50V Ceramic | AA |
| C2317 | VCEA0A1HW105M | R | 1 50V Electrolytic | AB |
| C2320 | VCFYFA1HA474J | R | 0.47 50V Mylar | AC |
| C2323 | VCEA0A1CW107M | R | 100 16V Electrolytic | AC |
| C2324 | VCFYFA1HA474J | R | 0.47 50V Mylar | AC |
| C2325 | VCKYCY1HF103Z | R | 0.01 50V Ceramic | AA |
| C2326 | VCKYCY1HF103Z | R | 0.01 50V Ceramic | AA |
| C2327 | VCEA0A1CW476M | R | 47 16V Electrolytic | AB |
| C2340 | VCEA0A1HW224M | R | 0.22 50V Electrolytic | AB |
| C2341 | VCEA0A1HW104M | R | 0.1 50V Electrolytic | AB |
| C2342 | VCEA0A1CW226M | R | 22 16V Electrolytic | AB |
| C2343 | VCE9GA1HW105M | R | 1 50V Electrolytic | AB |
| C2344 | VCKYCY1HF103Z | R | 0.01 50V Ceramic | AA |
| C2345 | VCCCCY1HH330J | R | 33p 50V Ceramic | AA |
| C2346 | VCCCCY1HH330J | R | 33p 50V Ceramic | AA |
| C2348 | VCKYCY1HF103Z | R | 0.01 50V Ceramic | AA |
| C2349 | VCKYCY1HF103Z | R | 0.01 50V Ceramic | AA |
| C2350 | VCKYCY1HF103Z | R | 0.01 50V Ceramic | AA |
| C2351 | VCKYCY1HF103Z | R | 0.01 50V Ceramic | AA |
| C2352 | VCEA0A1CW476M | R | 47 16V Electrolytic | AB |
| C2353 | VCFYFA1HA124J | R | 0.12 50V Mylar | AC |
| C2354 | VCKYCY1HF103Z | R | 0.01 50V Ceramic | AA |
| C2356 | VCKYCY1HF103Z | R | 0.01 50V Ceramic | AA |
| C2357 | VCKYCY1HF103Z | R | 0.01 50V Ceramic | AA |
| C2358 | VCKYCY1HF103Z | R | 0.01 50V Ceramic | AA |
| C2359 | VCEA0A1CW106M | R | 10 16V Electrolytic | AB |
| C2360 | VCKYCY1HF103Z | R | 0.01 50V Ceramic | AA |
| C2361 | VCKYCY1HF103Z | R | 0.01 50V Ceramic | AA |
| C2362 | VCKYCY1HF103Z | R | 0.01 50V Ceramic | AA |
| C2363 | VCKYCY1HF103Z | R | 0.01 50V Ceramic | AA |
| | **RESISTORS** | | | |
| RJ2300 | VRS-CY1JF000J | R | 0 1/16W Metal Oxide | AA |
| RJ2301 | VRS-CY1JF000J | R | 0 1/16W Metal Oxide | AA |
| RJ2302 | VRS-CY1JF000J | R | 0 1/16W Metal Oxide | AA |
| RJ2303 | VRS-CY1JF000J | R | 0 1/16W Metal Oxide | AA |
| RJ2304 | VRS-CY1JF000J | R | 0 1/16W Metal Oxide | AA |
| RJ2306 | VRS-CY1JF000J | R | 0 1/16W Metal Oxide | AA |
| RJ2307 | VRS-CY1JF000J | R | 0 1/16W Metal Oxide | AA |
| RJ2309 | VRS-CY1JF000J | R | 0 1/16W Metal Oxide | AA |
| RJ2310 | VRS-CY1JF000J | R | 0 1/16W Metal Oxide | AA |
| RJ2311 | VRS-CY1JF000J | R | 0 1/16W Metal Oxide | AA |
| RJ2312 | VRS-CY1JF000J | R | 0 1/16W Metal Oxide | AA |
| RJ2314 | VRS-CY1JF000J | R | 0 1/16W Metal Oxide | AA |
| RJ2315 | VRS-CY1JF000J | R | 0 1/16W Metal Oxide | AA |
| RJ2316 | VRS-CY1JF000J | R | 0 1/16W Metal Oxide | AA |
| RJ2318 | VRS-CY1JF000J | R | 0 1/16W Metal Oxide | AA |
| RJ2319 | VRS-CY1JF000J | R | 0 1/16W Metal Oxide | AA |
| RJ2320 | VRS-CY1JF000J | R | 0 1/16W Metal Oxide | AA |
| RJ2321 | VRS-CY1JF000J | R | 0 1/16W Metal Oxide | AA |
| RJ2322 | VRS-CY1JF000J | R | 0 1/16W Metal Oxide | AA |
| RJ2323 | VRS-CY1JF000J | R | 0 1/16W Metal Oxide | AA |
| RJ2327 | VRS-CY1JF000J | R | 0 1/16W Metal Oxide | AA |
| R2309 | VRS-CY1JF822J | R | 8.2k 1/16W Metal Oxide | AA |

| Ref. No. | Part No. | ★ | Description | Code |
|---|---|---|---|---|
| R2311 | VRS-CY1JF102J | R | 1k 1/16W Metal Oxide | AA |
| R2313 | VRD-RA2BE101J | R | 100 1/8W Carbon | AB |
| R2314 | VRD-RA2BE101J | R | 100 1/8W Carbon | AB |
| R2316 | VRS-CY1JF222J | R | 2.2k 1/16W Metal Oxide | AA |
| R2317 | VRD-RA2BE101J | R | 100 1/8W Carbon | AB |
| R2318 | VRS-CY1JF222J | R | 2.2k 1/16W Metal Oxide | AA |
| R2340 | VRS-CY1JF223J | R | 22k 1/16W Metal Oxide | AA |
| R2341 | VRS-CY1JF181J | R | 180 1/16W Metal Oxide | AA |
| R2342 | VRS-CY1JF183J | R | 18k 1/16W Metal Oxide | AA |
| R2343 | VRS-CY1JF561J | R | 560 1/16W Metal Oxide | AA |
| R2344 | VRS-CY1JF102J | R | 1k 1/16W Metal Oxide | AA |
| R2345 | VRS-CY1JF183J | R | 18k 1/16W Metal Oxide | AA |
| R2346 | VRS-CY1JF102J | R | 1k 1/16W Metal Oxide | AA |
| R2348 | VRS-CY1JF221J | R | 220 1/16W Metal Oxide | AA |
| R2349 | VRS-CY1JF393J | R | 39k 1/16W Metal Oxide | AA |
| R2350 | VRS-CY1JF152J | R | 1.5k 1/16W Metal Oxide | AA |
| R2351 | VRS-CY1JF102J | R | 1k 1/16W Metal Oxide | AA |
| R2352 | VRS-CY1JF823J | R | 82k 1/16W Metal Oxide | AA |
| R2353 | VRS-CY1JF823J | R | 82k 1/16W Metal Oxide | AA |
| R2354 | VRS-CY1JF225J | R | 2.2M 1/16W Metal Oxide | AA |
| R2355 | VRS-CY1JF101J | R | 100 1/16W Metal Oxide | AA |
| R2356 | VRS-CY1JF102J | R | 1k 1/16W Metal Oxide | AA |
| R2357 | VRS-CY1JF122J | R | 1.2k 1/16W Metal Oxide | AA |
| R2358 | VRS-CY1JF392J | R | 3.9k 1/16W Metal Oxide | AA |
| R2359 | VRS-CY1JF151J | R | 150 1/16W Metal Oxide | AA |
| R2361 | VRS-CY1JF102J | R | 1k 1/16W Metal Oxide | AA |
| R2362 | VRS-CY1JF102J | R | 1k 1/16W Metal Oxide | AA |

### BALUNES

| | | | | |
|---|---|---|---|---|
| FB2300 | RBLN-0062TAZZ | R | Balun, BLN-0062TA | AB |
| FB2302 | RBLN-0062TAZZ | R | Balun, BLN-0062TA | AB |
| FB2303 | RBLN-0067CEZZ | R | Balun, BLN-0067CE | AC |
| FB2304 | RBLN-0067CEZZ | R | Balun, BLN-0067CE | AC |
| FB2305 | RBLN-0062TAZZ | R | Balun, BLN-0062TA | AB |
| FB2390 | RBLN-0037CEZZ | R | Balun, BLN-0037CE | AB |

### MISCELLANEOUS PARTS

| | | | | |
|---|---|---|---|---|
| P2300 | QPLGZ0610CEZZ | R | Plug, 6 Pin | AB |
| P2301 | QPLGZ0810CEZZ | R | Plug, 8 Pin | AD |
| SLD2301 | PSLDM0260PEFW | R | Shield | AD |
| SLD2302 | PSLDM0261PEFW | R | Shield | AC |

## PWB-E DUNTKA124WEV5 FRONT UNIT

### TRANSISTORS

| | | | | |
|---|---|---|---|---|
| Q1200 | VS2SC3198-Y-1 | R | 2SC3198 | AA |
| Q1201 | VS2SC3198-Y-1 | R | 2SC3198 | AA |
| Q1202 | VS2SA1266-Y-1 | R | 2SA1266 | AA |
| Q1203 | VS2SA1266-Y-1 | R | 2SA1266 | AA |
| Q1205 | VS2SA1266-Y-1 | R | 2SA1266 | AA |

### DIODES AND LED'S

| | | | | |
|---|---|---|---|---|
| D1200 | RH-PX0414CEZZ | R | LED, Power ON/OFF | AE |
| D1201 | RH-PX0274CEZZ | R | LED, ON Timer | AC |
| D1202 | RH-PX0274CEZZ | R | LED, Save | AC |
| ⚠ VA3700 | RH-VX0048CEZZ | R | Varistor | AE |

### COIL

| | | | | |
|---|---|---|---|---|
| ⚠ L3700 | RCiLF0363CEZZ | R | Coil, CiLF0363CE | AG |

### CAPACITORS

| | | | | | | |
|---|---|---|---|---|---|---|
| C1200 | VCKYPA1HF103Z | R | 0.01 | 50V | Ceramic | AA |
| C1201 | VCEA0A0JW107M | R | 100 | 6.3V | Electrolytic | AB |
| C1202 | VCKYPA1HF103Z | R | 0.01 | 50V | Ceramic | AA |
| C1204 | VCKYPA1HB102K | R | 1000p | 50V | Ceramic | AA |
| C1205 | VCKYPA1HB102K | R | 1000p | 50V | Ceramic | AA |
| C1206 | VCQYTA1HM104J | R | 0.1 | 50V | Mylar | AA |
| C1207 | VCKYPA1HF103Z | R | 0.01 | 50V | Ceramic | AA |
| ⚠ C3700 | RC-FZ012SGEZZ | R | Capacitor | | | AE |

### RESISTORS

| | | | | |
|---|---|---|---|---|
| R1200 | VRD-RA2BE471J | R | 470 1/8W Carbon | AA |
| R1201 | VRD-RA2BE472J | R | 4.7k 1/8W Carbon | AA |
| R1202 | VRD-RA2BE103J | R | 10k 1/8W Carbon | AA |
| R1203 | VRD-RA2BE681J | R | 680 1/8W Carbon | AA |
| R1204 | VRD-RA2BE103J | R | 10k 1/8W Carbon | AA |
| R1205 | VRD-RA2BE472J | R | 4.7k 1/8W Carbon | AA |
| R1206 | VRD-RA2BE473J | R | 47k 1/8W Carbon | AA |
| R1207 | VRD-RA2BE472J | R | 4.7k 1/8W Carbon | AA |
| R1208 | VRD-RA2BE821J | R | 820 1/8W Carbon | AA |
| R1209 | VRD-RA2BE473J | R | 47k 1/8W Carbon | AA |
| R1210 | VRD-RA2BE472J | R | 4.7k 1/8W Carbon | AA |
| R1211 | VRD-RA2BE821J | R | 820 1/8W Carbon | AA |
| R1212 | VRD-RA2BE103J | R | 10k 1/8W Carbon | AA |
| R1213 | VRD-RA2BE101J | R | 100 1/8W Carbon | AB |
| R1214 | VRD-RA2BE101J | R | 100 1/8W Carbon | AB |
| R1218 | VRD-RA2BE562J | R | 5.6k 1/8W Carbon | AA |
| R1219 | VRD-RA2BE101J | R | 100 1/8W Carbon | AB |
| R1220 | VRD-RA2BE102J | R | 1k 1/8W Carbon | AA |
| R1221 | VRD-RA2BE101J | R | 100 1/8W Carbon | AB |
| R1222 | VRD-RA2BE222J | R | 2.2k 1/8W Carbon | AA |
| R1223 | VRD-RA2BE472J | R | 4.7k 1/8W Carbon | AA |
| R1224 | VRD-RA2BE822J | R | 8.2k 1/8W Carbon | AA |
| R1225 | VRD-RA2BE273J | R | 27k 1/8W Carbon | AA |
| R1227 | VRD-RA2BE273J | R | 27k 1/8W Carbon | AA |
| R1228 | VRD-RA2BE101J | R | 100 1/8W Carbon | AB |
| R1229 | VRD-RA2BE223J | R | 22k 1/8W Carbon | AA |
| R1230 | VRD-RA2BE151J | R | 150 1/8W Carbon | AA |
| R1231 | VRD-RA2BE102J | R | 1k 1/8W Carbon | AA |
| R1232 | VRD-RA2BE102J | R | 1k 1/8W Carbon | AA |
| R1233 | VRD-RA2BE102J | R | 1k 1/8W Carbon | AA |
| R1234 | VRC-UA2HG395K | R | 3.9M 1/2W Solid | AA |
| R1250 | VRD-RA2BE101J | R | 100 1/8W Carbon | AB |

### SWITCHES

| | | | | |
|---|---|---|---|---|
| S1200 | QSW-K0079GEZZ | R | Switch, CH Up | AB |
| S1201 | QSW-K0079GEZZ | R | Switch, CH Down | AB |
| S1202 | QSW-K0079GEZZ | R | Switch, VOL Up | AB |
| S1203 | QSW-K0079GEZZ | R | Switch, VOL Down | AB |
| S1204 | QSW-K0079GEZZ | R | Switch, Pre Set | AB |
| ⚠ S3700 | QSW-P0591CEZZ | R | Switch | AQ |

### MISCELLANEOUS PARTS

| | | | | |
|---|---|---|---|---|
| ⚠ FH3700 | QFSHD1017CEZZ | R | Fuse Holder | AC |
| ⚠ FH3701 | QFSHD1018CEZZ | R | Fuse Holder | AC |
| ⚠ F3700 | QFS-C5022CEZZ | R | Fuse, T5A 250V | AD |
| J1200 | QTANJ0335CEZZ | R | Terminal, Front A/V | AG |
| J1201 | QJAKJ0047CEZZ | R | Jack, Head Phone | AD |
| ⚠ P3700 | QPLGN0360CEZZ | R | Plug, 3 Pin | AC |
| ⚠ P3701 | QPLGN0269GEZZ | R | Plug, 2 Pin | AB |
| RMC1200 | RRMCU0235CEZZ | R | Remote Receiver | AK |
| SC1200 | QSOCN1895REZZ | R | Socket, 18 Pin | AC |
| SC1201 | QTiPM0083CEZZ | R | Tip | AB |

### MISCELLANEOUS PARTS

| | | | | |
|---|---|---|---|---|
| ⚠ | QACCB5003PEZZ | R | AC Cord | AY |
| | QCNW-2525PEZZ | R | Connecting Cord (29B-FX8) | AE |
| | QCNW-2526PEZZ | R | Connecting Cord (29B-FX8) | AE |
| | QCNW-2527PEZZ | R | Connecting Cord | AF |
| | QCNW-2528PEZZ | R | Connecting Cord (29B-FG8) | AF |
| | QCNW-2529PEZZ | R | Connecting Cord | AE |
| | QCNW-2530PEZZ | R | Connecting Cord | AD |
| | QCNW-2539PEZZ | R | Connecting Cord | AG |
| | QCNW-2540PEZZ | R | Connecting Cord | AF |
| | QCNW-2543PEZZ | R | Connecting Cord | AC |
| SP1, 2 | VSP1208PB326A | R | Speaker(29B-FG8) | AU |
| SP1, 2 | VSP1208PB336A | R | Speaker(29B-FX8) | AU |

| Ref. No. | Part No. | ★ | Description | Code |
|---|---|---|---|---|

## SUPPLIED ACCESSORIES

### ACCESSORIES

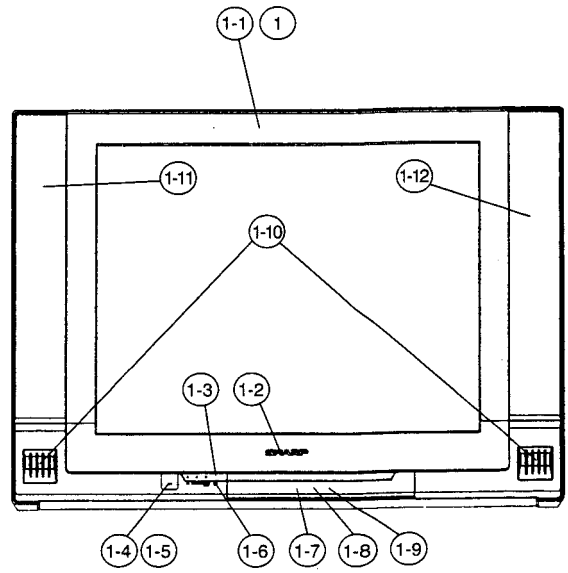
| | | | |
|---|---|---|---|
| RRMCG1570PESA | R | Infrared R-C | AP |
| TiNS-7097PEZZ | R | Instruction Book | AK |

## PACKING PARTS
## *(NOT REPLACEMENT ITEM)*

| | | | |
|---|---|---|---|
| SPAKC6699PEZZ | - | Packing Case(29B-FX8) | — |
| SPAKC6672PEZZ | - | Packing Case(29B-FG8) | — |
| SPAKP0083PEZZ | - | Wrapping Paper | — |
| SPAKX2751PEZZ | - | Pack Foam | — |
| SSAKA0002PEZZ | - | Polyethylene Bag | — |

## CABINET PARTS

| | | | | |
|---|---|---|---|---|
| 1 | CCABA2644WEV0 | R | Front Cabinet Ass'y (29B-FX8) | BQ |
| 1 | CCABA2606WEV0 | R | Front Cabinet Ass'y (29B-FG8) | BQ |
| 1-1 | *Not Available* | - | Front Cabinet | — |
| 1-2 | HBDGB3141CESA | R | SHARP Badge | AG |
| 1-3 | HDECQ0167PESA | R | LED Decoration Plate | AD |
| 1-4 | JBTN-0337PESA | R | Power Button | AG |
| 1-5 | MSPRC0005PEFW | R | Power Button Spring | AB |
| 1-6 | GCOVA0128PESA | R | LED, R/C Cover | AD |
| 1-7 | GDORF0185PESA | R | Door | AN |
| 1-8 | PKAi-0007PE00 | R | Door Latch | AE |
| 1-9 | HiNDP0264PEZZ | R | Indication Plate(IN-DOOR) | AE |
| 1-10 | *Not Available* | - | Port cover | — |
| 1-11 | HDECA0078PESA | R | Speaker Punching Left | AP |
| 1-12 | HDECA0079PESA | R | Speaker Punching Right | AP |
| 2 | CCABB2426WEV0 | R | Rear Cabinet Ass'y | BF |
| 2-1 | *Not Available* | - | Rear Cabinet | — |
| 2-2 | HiNDP0265PEZZ | R | Rear AV JACK Indication Plate | AF |



29B-FX8
29B-FG8

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SHARP CORPORATION
AV Systems Group
Quality & Reliability Control Center
Yaita, Tochigi 329-2193, Japan